Bullying of children and young people with autism spectrum disorders: an investigation into prevalence, victim role, risk and protective factors

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Contents

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Abstract

Bullying of children and young people with autism spectrum disorders: an investigation into prevalence, victim role, risk and protective factors

Being the victim of bullying is a problem for many children and young people, yet challenges in defining the term and methodological issues have made research findings difficult to compare (Pugh & Chitiyo, 2012). Nevertheless, there is agreement that certain factors at different ecological levels can raise or lower the likelihood of being bullied, and that children with Autism Spectrum Disorders (ASD) tend to be more vulnerable than their peers without ASD. The social impairments at the core of ASD have led to these children being termed "perfect victims" (Klin, Volkmar, & Sparrow, 2000, p. 6), although their developmental and behavioural profiles may mean that some bullying research conducted with typically developing peers is inappropriate for this group. Nevertheless, if left unaddressed, the problem of bullying may prevent inclusion in school and have serious negative effects on the child.

The aim of the current study was to investigate prevalence, victim role, risk and protective factors for being bullied among children and young people with ASD, using a representative sample taken from the evaluation of *Achievement for All* (Humphrey et al., 2011). An embedded mixed methods design was used to permit a richer understanding of being bullied. For the risk and protection analyses there were 722 responses from teachers and 119 from parents concerning children with ASD. Teachers and parents completed a survey on bullying and wider outcome areas, with additional contextual data collected. Data were analysed using multiple regression, including a cumulative risk analysis. There were five focus pupils in the qualitative strand, and interviews were conducted with teachers, parents and pupils to investigate issues around being bullied. Thematic analysis was used to explore the interview data.

Results indicated that children and young people with ASD were bullied more than other pupils with Special Educational Needs and Disabilities, although actual prevalence varied greatly according to the method of measurement. Children with ASD were more likely to be victims, although the proportion of bully-victims was higher than in the general population. A multiple regression analysis with bullying mean score as the dependent variable indicated that 43% of variance was attributable to the predictor variables in the teacher model, and 38% in the parent one. Risk factors were having higher levels of behaviour problems, being in Years 5, 7 and 10 (compared with Year 1), use of public/school transport to get to school, and being at School Action Plus; protective factors were increased positive relationships, attending a special school, and higher levels of parental engagement and confidence. Bullying rose according to the number risks to which a child was exposed, and the rise was exponential in the teacher model. Qualitative results allowed an exploration of the experience of bullying and processes contributing to vulnerability, with transition emerging as an additional concern. Implications and directions for future research are discussed in the context of these findings.

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The author

The author of this thesis initially trained as a modern foreign languages teacher and taught in a range of secondary schools in England and Wales, latterly as Head of Modern Languages. A growing interest in the education of young people with SEND, inspired initially by a desire to understand the social and educational challenges of young people with ASD, led to her complete an MEd in the Psychology of Education at the University of Manchester.

The author's Master's dissertation focused on the mental health of young people with ASD in mainstream secondary schools, with high levels of bullying emerging as a theme of concern. This led to a successful application to be part of the *Achievement for All* (*AfA*) evaluation team, including a studentship to study towards this PhD. The author has a strong continued interest in understanding how to meet the needs of young people with ASD during their school years. She has presented on this subject at three international conferences.

Publications:

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Humphrey, N., Squires, G., Barlow, A., Bulman, W. F. L., Hebron, J. S., Oldfield, J., et al. (2010). *Achievement for All national evaluation: Interim report 1 (RR028)*. London: DfE.

Humphrey, N., Squires, G., Barlow, A., Bulman, W. F. L., Hebron, J. S., Oldfield, J., et al. (2011). *Achievement for All National Evaluation: Final Report* (No. DfE-RR176). London: DfE.

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Key to abbreviations

AfA	Achievement for All
ADHD	Attention deficit hyperactivity disorder
AS	Asperger syndrome
ASD	Autism spectrum disorder
BESD	Behaviour, emotional and social development needs (SEND area of need)
Besd	Behaviour, emotional and social difficulty (SEND category)
DfE, (formerly DCSF/DfES/ DfEE/DES)	Department for Education (formerly Department for Children, Schools and Families / Department for Education and Skills / Department for Education and Employment / Department for Education and Science)
DV	Dependent variable
FSM	Free school meals
HFA	High-functioning autism
HI	Hearing impairment
IV	Independent variable
MLD	Moderate learning difficulty
MMR	Mixed methods research
MSI	Multi-sensory impairment
NAS	National autistic society
NLD	Non-verbal learning disorder
NPD	National Pupil Database
OBVQ	Olweus Bully/Victim Questionnaire
Ofsted	Office for Standards in Education
PD	Physical disability
PDD-NOS	Pervasive developmental disorder not otherwise specified
PMLD	Profound and multiple learning disability
RQ	Research question
SA	School Action
SAP	School Action Plus
SDQ	Strengths and difficulties questionnaire
SEND	Special educational needs and disabilities
SES	Socio-economic status
SLCN	Speech, language and communication needs
SLD	Severe learning difficulty
SpLD	Specific learning difficulty
TA	Thematic analysis
TD	Typically developing
VI	Visual impairment
WOSP	Wider outcomes survey for parents
WOST	Wider outcomes survey for teachers

CHAPTER 1: BULLYING

1.1 Introduction: putting bullying into context

1.1.1 Historical background

Bullying is a phenomenon that has long been acknowledged in society and is likely to have existed throughout human history (Lines, 2008). References to bullying behaviour of a strong character towards a weaker one abound in literature, ranging from the *Bible* (e.g. Cain and Abel, and the Parable of the Good Samaritan), to more modern works such as *Tom Brown's Schooldays* (Hughes, 1857) and *Lord of the Flies* (Golding, 1954).

Nevertheless, academic research was largely neglected until relatively recently and began in Scandinavia, where educational authorities did not take a serious interest in bullying and its consequences until three boys committed suicide in 1982, probably as a result of bullying. This triggered mass media and public interest, and resulted in a government-led campaign to tackle the problems of bullying (Olweus, 1993). Dan Olweus was commissioned to investigate the nature of bullying in Norway and Sweden, and his book, *Aggression in the schools: Bullies and whipping boys* (Olweus, 1978) is widely regarded as the seminal work that inspired subsequent research.

1.1.2 The national context

Research in England did not begin in earnest until the late 1980s, following publication of the findings of the Norwegian intervention programme (Olweus, 1978). This coincided with the release of three books on school bullying that drove forward the educational debate in the UK: *Bullies and victims in schools* (Besag, 1989); *Bullying in schools* (Roland & Munthe, 1989); and *Bullying in schools* (Tattum & Lane, 1988). The Elton Report on school discipline (Department of Education and Science [DES], 1989) was the first government report specifically to mention school bullying, although it only occupies one relatively brief section of the report (pp.102-3), and no direct action was taken as a result of it (Smith & Sharp, 1994). However, the Gulbenkian Foundation set up an advisory group on bullying in the same year, funding early research and a number of initiatives (e.g. the *Bullying*

Line) (ibid.). Media interest followed in 1992 when the BBC TV programme *That's Life* publicised the case of a teenage girl who had committed suicide as the probable result of bullying. In response to growing concerns, the government funded a project known as *The Sheffield Study* (Whitney & Smith, 1993) that was inspired by the Olweus' work (1993). The findings were far-reaching, revealing that bullying was as serious a problem in England as it was in Scandinavia, if not more so (Whitney & Smith, 1993).

Since the mid-1990s school bullying has been made a priority by the government and schools. While it is beyond the scope of this introduction to give details of all the legislation, guidance and strategies that have emerged over the years, it is of note that recent education acts (e.g. 1998 & 2002) have emphasised the head teacher's and governing body's responsibilities towards the safeguarding of children, including protection from bullying (Cowie & Jennifer, 2008; Maunder, Harrop, & Tattersall, 2010). All schools now have a statutory requirement (Education and Inspection Act, 2006) to have an anti-bullying policy that complies with legislation and also children's rights, as declared in Article 19 of the *United Nations (UN) Convention on the Rights of the Child* (UN, 1989). The former *Every Child Matters Agenda* (Department for Children, Schools and Families [DCSF], 2004) emphasised the need for children to be safe that included protection from bullying, and in 2007 the DCSF produced *Safe to learn: embedding anti-bullying work in schools*. The current coalition government has recently published a new document entitled *Preventing and tackling bullying – advice for head teachers, staff and governing bodies*, (Department for Education [DfE], 2011a) that replaces previous guidance to schools on bullying and aims to bring together all the necessary information in one document. In 2012, the government announced that there is to be a new Ofsted framework[1], in which schools will be expected to demonstrate the effectiveness of their anti-bullying policies during inspections (DfE, 2011a).

In addition to government initiatives, a number of charities have become involved in the fight against bullying, for example *Kidscape* and the *Anti-Bullying Alliance*. These organisations aim to raise the profile of the problems of bullying and encourage young people, their parents and teachers to combat bullying behaviour.

[1] Ofsted – the Office for Standards in Education – is the government-funded body that is responsible for school inspections.

1.1.3 Why study bullying?

In the context of the two preceding sections, it is clear that bullying is neither a recent phenomenon nor is it rare. The abundance of references to it in literature, spanning centuries and coming from across the world, should be sufficient justification for exploring ways to tackle it. Bullying is also known to persist across the lifespan, occurring in many contexts such as the workplace, prisons and the military (Monks et al., 2009). Worryingly, childhood victims are more likely than bullies to bring weapons into school, perhaps in order to protect themselves, and it is of particular concern that the majority of high-school shooters have been persistent victims of bullying (Merrell, Gueldner, Ross, & Isava, 2008).

However, the most compelling reasons for studying bullying come from the potentially disastrous consequences associated with it. Suicide as a potential outcome is widely supported in the literature (Nansel et al., 2001), with findings that support the poor prognosis for bullied children as they move into adulthood (e.g. Sourander et al., 2007). While suicide is relatively rare among victims, suicide ideation (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007), self-harm (McMahon, Reulbach, Keeley, Perry, & Arensman, 2010) and adjustment difficulties are more common (Olweus, 1993), even long after the bullying has subsided. Other issues closely associated with being the victim of bullying include mental health problems (Turner, Finkelhor, & Ormrod, 2006) and low self-esteem (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Hawker & Bouton, 2000). Although involvement in criminality tends to have a greater association with bullies, there are indications that victims of bullying have a greater tendency to develop behavioural problems (Sourander et al., 2007) and commit violent acts (Nansel, Haynie, & Simons-Morton, 2003). There may be links to higher levels of risky behaviour, such as drug use, alcohol abuse and smoking, although findings in these areas remain inconclusive (Fleming & Jacobsen, 2009). The effects on the individual are also thought to impact on academic attainment (Green, Collingwood, & Ross, 2010) and attendance at school (Kochenderfer & Ladd, 1996).

It is therefore apparent that being the victim of bullying is not just harmful in the short-term. This raises questions about who is bullied: are certain groups more vulnerable, and if so, why? What factors might predispose a child to becoming the victim of bullying, and are there other factors that may be instrumental in preventing

it? These are all questions that are commonly asked in research, but answers can be elusive.

1.1.4 Conclusion

Thus, over the past half century, bullying has evolved from an acknowledged but neglected threat to many children, to a high-profile subject of debate that has triggered considerable research and many initiatives aimed at its reduction. The existence of bullying behaviour across time and cultures means that its influence spreads far and wide and warrants the attention it currently attracts. These are all key considerations for the present study, as there are only a few studies in the field of autism spectrum disorders (ASD) that attempt specifically to address issues of bullying. Nevertheless, in order to successfully study the bullying of any group, it is necessary to have a clear understanding of how it is defined: something that is the subject of on-going debate.

1.2 Defining bullying

Bullying comes under the umbrella term of aggression (Griffin & Gross, 2004), which is represented by a large body of research. In its broadest sense, there have been difficulties defining aggression, but one relatively concise and clear definition proposes that: "human aggression is any behaviour directed towards another individual that is carried out with the proximate (immediate) intent to cause harm … accidental harm is not aggressive because it is not intended" (Anderson & Bushman, 2002, pp. 28-29).

Research into peer aggression contains a number of subcategories (Griffin & Gross, 2004), with bullying thought to be part of proactive aggression, as it is unprovoked by the victim but may satisfy certain goals on the part of the aggressor from a social learning perspective (Price & Dodge, 1989). Reactive aggression, on the other hand, with its theoretical underpinnings in the frustration-aggression model, is considered to be a defensive reaction to a perceived threat (ibid.) and may predict aggressive victimisation (Pellegrini & Bartini, 2000). Olweus (in Smith et al., 1999) describes the relationship between bullying, violence and aggression. He demonstrates clearly how bullying can be seen as a sub-category of aggression but cannot be treated synonymously with violence, as the majority of it occurs without a physical element. Therefore, bullying may be seen as subsumed within peer aggression, while occupying its own distinct position within the field; and one which has attracted increasing interest over the past 50 years.

There remains some confusion in the literature over whether bullying and peer victimisation are synonyms or whether bullying is only one aspect of peer victimisation, with considerable overlap between the different components, such as victimisation related to race, gender and socio-economic status (Greif & Furlong, 2006). While victimisation tends to be used more in the US, bullying is becoming more widely used in school contexts (Griffin & Gross, 2004) and is the predominant term used in British and European research. Most studies treat bullying as synonymous with peer victimisation, and many of the factors identified as potentially separate from bullying are treated as risk factors, as opposed to different types of bullying or victimisation. As the two terms tend to be used and understood interchangeably in the majority of the literature (e.g. in Brock, Nickerson, O'Malley,

& Chang, 2006), this is the approach taken in this thesis. Other terms sometimes used in the context of bullying are discussed by Smith et al. (2002), in which "teasing" is seen as commonly used to denote a less serious form of verbal bullying and is frequently contained within school bullying literature. "Harassment" and "abuse", while sharing some similarities have connotations for behaviour thought to be more adolescent or adult in nature (ibid.).

Many definitions of bullying that have been used in research are based on Olweus' early (1993) definition:

> A student is being bullied or victimised when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students (p.9).

This is not the full extent of the definition, however, as Olweus explains how "negative actions" imply deliberate harm that may be verbal (e.g. name calling) and relational (e.g. social exclusion) as well as physical (e.g. hitting). He stresses that bullying can refer to a single instance in certain circumstances, even though repeated occurrences are more common. He also states that there needs to be a power imbalance and that the victim will have difficulties in defending him/herself (ibid.).

Therefore, although the definition may appear broad or even vague, the qualifying statements that Olweus subsequently makes render it more comprehensive. A great deal of research has embraced this definition as a starting point, but has tried to refine it even further, leading to considerable debate over whether consensus on a precise definition can ever be reached. A review of the literature indicates that it is useful to subdivide definitions of bullying into two categories: conceptual definitions and types of bullying. These are explored in more detail in the following two sections.

1.2.1 Conceptual definitions

Although there is no agreed definition of bullying in the literature, there are three criteria that tend to be common to most definitions: bullying is *deliberate, repeated,* and with an *imbalance of power* between the bully and the victim. All of these aspects are mentioned explicitly by Olweus (Maunder et al., 2010), and there is some

agreement that these are key ingredients (Espelage & Swearer, 2003; Frederickson, 2010).

Nevertheless, absolute consensus is far from being reached. For example, teachers and pupils in some secondary schools failed to identify either power imbalance or intent to be prerequisites for bullying (Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006). Furthermore, as early as 1993, it was suggested that some teachers do not feel that repetition is necessary (Guerin & Hennessy, 2002; Siann, Callaghan, Lockhart, & Rawson, 1993), and Land (2003) found that over half of secondary students, when asked to define bullying, did not include repetition. There have also been discussions over intentionality: specifically, if a bully's intended outcome is not acknowledged by the chosen victim, or alternatively if behaviour not intended as bullying is misinterpreted as such by a child, can it be deemed to be bullying (Greif & Furlong, 2006)?

There have been concerns that three factors cannot encompass the full extent of bullying behaviour, with claims that a further two features are necessary: that it takes place within a social setting with peers present (Griffin & Gross, 2004), and that it is unprovoked. The social aspect is seen frequently in the context of school bullying, with many acknowledging the importance of the environment in which it takes place (Besag, 1989; Björkqvist, Ekman, & Lagerspetz, 1982). Nonetheless, a lack of provocation has been challenged by researchers who argue that there are not just victims of bullying, but another under-researched group known as aggressive victims, provocative victims, or more commonly bully-victims (e.g. Haynie et al., 2001). Victim status is discussed in detail in section 1.5.6, but it is increasingly acknowledged in the literature that bullying may not only be directed at the traditional passive victim but also at a more challenging group of children who may provoke bullying, deliberately or inadvertently (Griffin & Gross, 2004). While both types of victims are pertinent to the current study, children with ASD may be especially prone to provoking bullying in others due to their difficulties in social understanding: this is discussed in detail in Chapter 2.

In their review of definitions, Brock et al. (2006) acknowledge some of the criticisms of only three factors, instead arguing for six criteria, adding perceptions to the five

already mentioned, thus incorporating the subjective nature of bullying. Their definition of bullying, that they believe to be overarching, is:

> The consequence of acts of intentional aggression, by a peer (or group of peers) operating from a position of strength or power, and directed at a victim who is viewed as relatively weak. The aggressor's goal is to damage status and/or social relationships. The victim may or may not have had a role in provoking the aggression. As a consequence of the aggression, the victim perceives him- or herself as having been hurt or abused, and the victimization significantly decreases his or her well-being. These negative acts occur over a period of time and are viewed by victims as comprising a pattern of aggressive behavior (p.5).

Despite arriving at a comprehensive but still contentious explanation, there are other considerations that make research definitions yet more problematic. A number of studies have suggested that children may define bullying differently from adults, with the definition broadening the younger the child (Smith et al., 2002). This could reflect developmental trends (Gumpel & Meadan, 2000) and also gender differences, with girls more likely to label situations as bullying than boys, although findings in this area have been inconclusive (Maunder et al., 2010). Smorti, Menesini, and Smith (2003) found that researchers and parents appear to have a closely matching understanding of the meaning of bullying. This has implications for the measurement of bullying that is addressed in section 1.4.2.

1.2.2 Types of bullying

In addition to these conceptual features, there are types of bullying behaviour that are often separated into overt/direct and relational/indirect behaviours (Brock et al., 2006). Overt/direct bullying is described as confrontational physical behaviour (e.g. threatening and fighting) but it can also be verbal (e.g. name-calling and teasing) (Olweus, 1978). Some research has treated verbal bullying as separate (e.g. Hawker & Boulton, 2001), but it tends to be subsumed within consideration of direct bullying in the literature. While early bullying research only considered the physical aspect, Olweus acknowledged the more psychological and indirect forms which can be extremely damaging (Nordhagen, Nielsen, Stigum, & Kohler, 2005).

Indirect bullying has attracted more interest in recent years, with an increasing number of studies including items on it in questionnaires and scales. Indirect bullying relates to more hidden actions that often make use of a third party and are intended to damage peer relationships (e.g. spreading of rumours) (Brock et al., 2006). Relational bullying implies no direct confrontation and is often used interchangeably with indirect bullying (e.g. Borntrager, Davis, Bernstein, & Gorman, 2009). However, others argue that relational bullying (or social aggression) is different, with a greater emphasis on negative intent and consequences of the bullying (e.g. Smith et al., 2002), and can in fact be direct and indirect in nature depending on whether the victim is confronted or not (Brock et al., 2006).

Although these types of bullying are well documented, there can be inconsistency in their reporting, with pupils found to report direct bullying more often and regard it as more serious than indirect bullying (Boulton, Trueman, & Flemington, 2002), and there have been similar findings among teachers (Yoon & Kerber, 2003). Moreover, gender differences in teachers have been noted in judging the severity of indirect bullying, with female staff deeming it more serious than their male counterparts (Ellis & Shute, 2007). Worryingly, Garner and Stowe Hinton (2010) found relational/indirect bullying to be more common than physical types of bullying, and there is the suggestion that these forms can sometimes have a greater negative effect than direct bullying (Maunder et al., 2010).

Cyber-bullying that is conducted through electronic media, such as the internet (e.g. social networking websites) and mobile phones (e.g. text messaging), can also be included under the auspices of direct (e.g. sending threatening messages) and indirect (e.g. spreading gossip) bullying (Vandebosch & Van Cleemput, 2009). However, an exploration of this type of bullying lies beyond the scope of the current study, in that it uses parent and teacher-reports, neither of which are sufficiently sensitive, as this form of bullying is more covert, and so less likely to be known to these respondents, making self-report more appropriate. Also, the youngest children in the current study (in Year 1 of primary school) were judged unlikely to use the media concerned in a way that could lead to bullying.

1.2.3 Conclusion

Defining bullying behaviour is fraught with difficulties, making it problematic to operationalise the term for the purpose of research. This has led to different definitions being used in studies (Pugh & Chitiyo, 2012). Nevertheless, as bullying must take place within a social context (i.e. more than one person must be involved), a more flexible approach has been recommended. For example, having attempted a working definition, Mellor (1997) concedes that other definitions may also be used, especially if they fit the specific context better. Similarly, Arora (1996) and Lines (2008) caution against over-reliance on definitions, arguing that they should only be seen as "rough guides of classification" (p.24), as ultimately the social context will also shape that definition and understanding.

Despite concerns over definition, anti-bullying initiatives are well-established in the UK (e.g. buddy schemes and circle time, Thompson & Smith, 2011), with teachers now familiar with government approved definitions. As parents have open access to anti-bullying policies, it is reasonable to assume that they are more aware of government definitions than was the case previously. The definition chosen for the present study was the government version at its inception, and which defines bullying as:

> Behaviour by an individual or group, usually repeated over time, that intentionally hurts another individual or group either physically or emotionally (DCSF, 2008a, p. 1).

While comparatively short, it nevertheless goes beyond Olweus' early definition (Olweus, 1993), with intentionality and the physical/emotional nature, as well as repetition, duration and the individual/group aspect. As the current study involved parents and teachers completing a questionnaire with a section on bullying, this definition was advantageous for its brevity, ease of understanding and breadth, allowing the bullying behaviour to be interpreted in the context in which it took place. This relatively short definition does not preclude an acknowledgement of the usefulness of the more complex ones given by Brock et al. (2006) and more recently by DfE (2011a), and indeed both of these give highly informative and practical accounts from a research perspective. However, complex research definitions may not be the same as those held by parents and teachers, necessitating a more flexible

approach. This is a key consideration for the current study, due to the use of different types of informant across different age groups and educational settings.

In conclusion, defining bullying remains a problematic and complex area, with the likelihood of full consensus remaining remote. A more flexible approach may permit the contextual nature of bullying to be taken into consideration, although this flexibility may in turn make precise measurement challenging.

1.3 Theories of bullying

A clear picture regarding the theoretical underpinnings of bullying is surprisingly difficult to find despite the wealth of recent research into it. A review of the literature found little mention of theory, with the majority of studies appearing atheoretical. When it is explicitly mentioned, there is often a focus on bullies rather than victims, perhaps reflecting an emphasis on reducing bullying behaviour through interventions (e.g. Pugh & Chitiyo, 2012). However, a small number of studies have attempted to address the role of theory in bullying. For example, in their exploration of child harm and bullying behaviours, Dussich and Maekoya (2007) mention the theoretical contributions of developmental (e.g. Piaget, 1972; Vygotsky, 1978), sociological (e.g. Weber, 1922) and philosophical (e.g. Foucault, 1982) approaches. On a related note, in their exploration of bullying in different contexts, Monks et al. (2009) note that "there is little work which has directly applied theoretical frameworks to bullying" (p.154), but they mention evolutionary theory, attachment theory, social learning theory, social cognitive theory and socio-cultural theories as making potentially valuable contributions. Biological influences have also been proposed but also fall short of a convincing explanation that can encompass the complexities of bullying (Pugh & Chitiyo, 2012). Theoretically-driven studies tend to propose evolutions of existing theories that fit their own research, but these are not applicable more broadly (e.g. the dual-perspective theory of bullying in Veenstra et al., 2007).

1.3.1 Integrative models of bullying

In his examination of five broad theoretical perspectives, Rigby (2004) acknowledges that while all have some merit, "none can claim to provide a complete explanation for bullying behaviour in schools, nor form the basis for a comprehensive approach to the problem" (p.287). In this context there has been a growing drive towards the development of integrative models that encompass both individual and contextual factors and acknowledge the complexity of bullying. For example, Pepler et al. (2006) propose the use of a bio-psycho-social model that aims to integrate the different elements that comprise bullying behaviour from a bully and victim perspective. In their examination of the role of theory, Monks et al. (2009) also call for further research in order to develop a more inclusive model.

Systems theory may be useful for an understanding of bullying behaviour in that it allows for multiple levels of influence to be considered (Bonnet, Goossens, Willemen, & Schuengel, 2009; Slee & Mohlya, 2007). Brock et al. (2006) proposed an integrative predictive model of bullying that is shown in Figure 1. It demonstrates how differences at the individual level are compounded by behavioural aspects and other contextual factors that combine to produce high levels of risk for being bullied. It is of note that such a model combines the strengths of many of the theoretical approaches that are unable to provide an explanation for bullying in isolation.

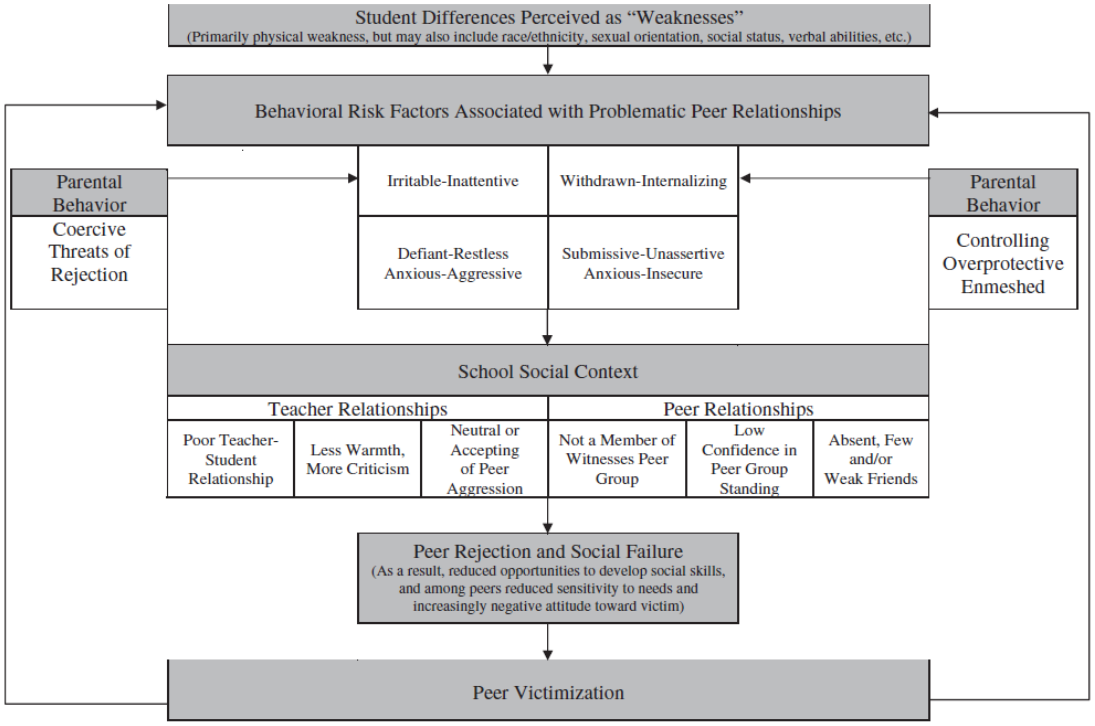

Figure 1: Theoretical model of peer victimisation from Brock et al. (2006, p. 14)

This model bears some similarities to Juvonen and Gross' (2005) idea that rejection is the first stage of a complex process that leads to being bullied. Their argument is that rejection stemming from not conforming to group norms leads to the child developing negative social cognitive biases that serve to perpetuate their difference and rejection, resulting in long-term social difficulties. Nevertheless, these models assume that pupil difference is a prerequisite for being bullied and does not take into account the wide range of other factors that may be implicated.

1.3.2 Bronfenbrenner's ecology of human development

A more flexible and potentially comprehensive approach to integrating theory is Bronfenbrenner's (1979a) Ecology of Human Development that is used in a number of more recent investigations into bullying behaviour. The main premise of Bronfenbrenner's theory is that "the properties of the person and of the environmental settings, and the processes taking place within and between them must be viewed as interdependent" (Bronfenbrenner, 1979a, p. 41), with interactions reciprocal rather than unidirectional. He rejects laboratory settings for research, noting that they do not mirror real life and instead proposes multiple settings that have an increasingly distal influence on human behaviour:

- **Microsystem**: the individual's immediate context that most directly influences (and is influenced by) him/her. Examples are the peer group, family and school.
- **Mesosystem**: this is the next level and is made up of all the Microsystems, including overlaps between some of them. For example, there is likely to be an overlap between school and family, in that parents will attend parents' evenings.
- **Exosystem**: this represents larger settings in which the child may not be directly involved, such as the school system and the neighbourhood.
- **Macrosystem**: incorporates the wider systems in society, such as the political system, cultural beliefs and trends.

As much of the extant research into bullying notes both individual differences and the importance of the social context, such an approach offers a more pragmatic and real-life framework. Figure 2 gives an example using the first three levels of Bronfenbrenner's ecological taxonomy. This shows how it may be applied to a child who is the victim of bullying in the context of variables that are pertinent to the current study.

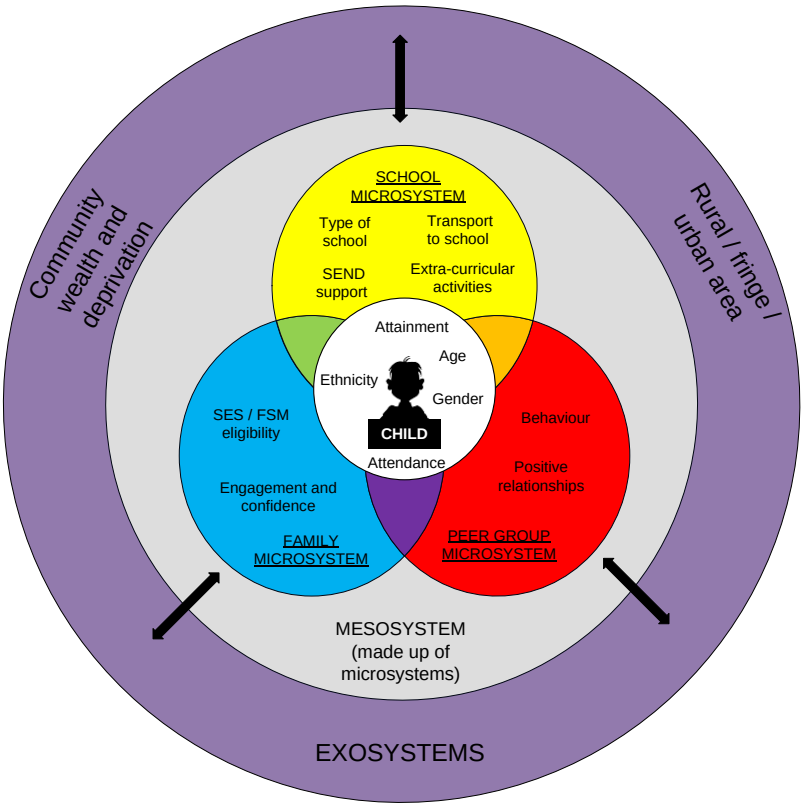

Figure 2: Factors and levels potentially involved in bullying of children

Cook, Williams, Guerra, Kim, and Sadek (2010) conducted a meta-analysis of predictors of bullying, dividing factors into eight individual and five contextual factors. Indeed, such an approach permits an exploration of the complexity of bullying in a more holistic manner (Swearer, Espelage, Vaillancourt, & Hymel, 2010), while avoiding an unnecessarily reductionist approach (Card, Isaacs, & Hodges, 2008). For example, Lee (2011) used ecological systems theory to explore bullying behaviour focusing on individual traits, family experiences, the involvement of parents, school climate and features of the community, with significant findings emerging at all levels (but mostly at the individual level). In particular they note how this theoretical framework "allows investigation into simultaneous effects of individual traits and interpersonal and contextual factors on bullying behaviors", with children viewed "as the centre of their world" (p.1667). Similarly, Barboza et al. (2009) formulated an ecological model of risk factors for bullying behaviour among early adolescents.

1.3.3 Conclusion

To conclude, theory cannot be applied easily to the understanding of bullying due to its varied nature, the different environments in which it occurs, and the considerable disparity in the number of risk factors and their strength (which are in turn likely to vary depending on the particular child and the specific context). As is the case with definition, there is a danger in being over-prescriptive with theory, as the context can be lost: something which is vital when trying to understand why a child has been bullied. Therefore, an integrative, systems-based approach that that has the flexibility to allow for individual variation and multiple risks at different ecological levels is likely to offer a more suitable framework for understanding bullying (Pugh & Chitiyo, 2012). For this reason, Bronfenbrenner's ecology of human development is the approach that has been chosen for the present study.

1.4 Prevalence and measurement

1.4.1 Prevalence

In light of difficulties in finding adequate theoretical and definitional approaches to bullying, the question arises over the extent to which it is possible to assess the prevalence of being bullied. Prevalence is a term often confused with incidence, both of which are measures commonly used in epidemiology but also in psychology. Incidence measures the rate at which new cases of a particular disease or condition occur, usually within a precise timeframe (Crichton, 2000). Prevalence, on the other hand, relates to the number of people in a population with a disease or condition at a particular point in time and is usually expressed as a percentage (ibid.). In the context of bullying, the overwhelming majority of studies focus on prevalence, rather than the number of new cases (although research into the incidence of bullying is feasible, potentially following an anti-bullying intervention).

Olweus's (1993) nationwide survey in Norway revealed that approximately 15% of students were involved in bullying, with 9% victims, 7% bullies and 1.6% bully-victims. As the study of bullies as a distinct group is beyond the scope of this thesis, only victim groups are referred to from this point on. However, figures for victims of bullying vary wildly, from 5.5% of girls in Sweden to up to 57% of pupils in Australia (Analitis et al., 2009), and across the literature there is no consensus on prevalence, with methodological inconsistencies often cited as the cause (Pugh & Chitiyo, 2012). While there are numerous large-scale studies of bullying (Griffin & Gross, 2004), the range of prevalence varies so greatly that trying to either compare or assess them may seem a futile exercise.

To further complicate difficulties in estimating prevalence, huge cross-cultural differences have been found. For example, when using Kidscreen-52 (a survey measuring health-related quality of life in 8-18 year olds) Analitis et al. (2009) found that rates of being bullied across 11 European countries varied from 10.5% in Hungary to 29.6% in the UK (and a Europe-wide average of 20.6%).

In terms of estimates within the UK, the government funded national 2008 Tellus survey revealed that 14% of 8-16 year olds had been bullied during the past month at school (Ofsted, 2008), while the 2009 survey, using different measurement criteria, reported 8% of children bullied at school (DCSF, 2010). In their report to the Welsh

Assembly, Bowen and Holtom (2010) found that just under a third of pupils in Years 6 and 7 had been bullied in the previous month, but that this fell to 15% by Year 10, with higher figures if the timeframe was extended to the past year. Thus, while most pupils are not bullied, victims of bullying are likely to represent a sizeable minority of pupils, justifying its study and heightening the need for reliable and accurate measurement.

1.4.2 Measurement

Many studies on prevalence cite methodological difficulties in generating meaningful figures (e.g. Borntrager et al., 2009; Haynie et al., 2001). Vaillancourt et al. (2010) point out poignantly that "with the proliferation of bullying research came the inevitable challenge of standardising definition and measurement" (p.234). It is acknowledged by many that standardising both the definition and measurement of bullying is of importance (Swearer, Siebecker, Johnson-Fredrichs, & Wang, 2010), and that prevalence varies according to how it is assessed (Sawyer, Bradshaw, & O'Brennan, 2008). Having stressed the need for studies to have a consistent definition of prevalence yet finding that this is often not the case, Solberg and Olweus (2003) note an additional six methodological features that they believe contribute to the extreme variability in prevalence estimates in studies. These are all widespread concerns in the literature and are discussed below in more detail, along with additional ones not mentioned explicitly by Solberg and Olweus.

Single item variable or scale

There are numerous scales and questionnaires that claim to be able to measure victimisation (Hartung, Little, Allen, & Page, 2011), but the one that tends to be used most and has been translated into a number of languages, is the *Revised Olweus Bully/Victimisation Questionnaire* (*OBVQ*) (Olweus, 1996), and which is considered to have good overall reliability and validity (Griffin & Gross, 2004). Nevertheless, there are countless others that either stand alone as measures of bullying (e.g. *My Life in School Checklist*, Brendgen et al., 2008) or are contained as single or multiple items within larger scales (e.g. the *Strengths and Difficulties Questionnaire[SDQ]*, Goodman, 2001), while other measures are often created for specific studies (Griffin & Gross, 2004), making comparison between studies extremely difficult.

One particular issue revolves around the use of a single or small numbers of items to measure bullying versus multiple statements covering different features of it to generate an overall score. For example, the *Kidscreen* scale used only three questions (Analitis et al., 2009), compared with 39 in the *OBVQ* (Olweus, 1996). While useful within surveys measuring different phenomena in addition to bullying, a single or low number of statements (or questions) may be less reliable and cannot realistically aim to cover the myriad of events and behaviours that could be construed as bullying. Thus the convenience of fewer items may well be outweighed by a lack of reliability and also difficulties in distinguishing between the various types of bullying mentioned in section 1.2.2.

Definition versus descriptive statements

Similar to single item versus scale, some studies provide a definition and then typically ask how often the bullying behaviour has happened (e.g. Nansel et al., 2001), whereas others include a more detailed range of questions about different forms of bullying behaviour (e.g. Rigby, 1998). Vaillancourt (2008) found that having a definition led to reporting of a lower prevalence of being bullied than when no definition was provided. This may suggest that definitions lead to under-reporting, due to a potential lack of flexibility. Alternatively, it could mean that having descriptive statements encourages respondents to become overly liberal and subjective in their interpretation of bullying. Other studies, such as the *Achievement for All* (*AfA)* national evaluation (Humphrey et al., 2010), provided both a definition and also descriptive statements. In the light of the potential short-comings of a definition-only or descriptive statement–only approach, this method may provide a more appropriate balance, drawing on the advantages of both and ensuring that participants have as clear a picture as possible of what constitutes bullying behaviour.

Response categories and time-frames

Different questionnaires and scales include a range of response categories from dichotomous *yes/no* answers to Likert-style response formats offering several choices. Similarly, time descriptors in relation to frequency of bullying vary from the relatively vague (e.g. *often*) to the more precise (e.g. *several times a week*) (Solberg & Olweus, 2003). This is further complicated by variability in the time-frame used to establish a threshold for being classed as a victim of bullying: for example, some

studies specify *during the last school year*, and others *during the past two or three months*. Many studies fail to determine a time-frame at all, meaning that respondents may interpret it differently, further complicating the feasibility of any sort of comparison between studies (Griffin & Gross, 2004).

In their examination of prevalence estimation using the revised *OBVQ*, Solberg and Olweus (2003) attempt to establish meaningful cut-points for prevalence estimates, concluding that it should be "two to three times a month (in the past couple of months)" (p. 263), and that this level should be used across studies to provide a standard of reference. The rationale behind this was that there were large psychosocial differences found between those bullied once or twice per month compared with those who were bullied two to three times per month. While this method may provide a useful strategy for assessing prevalence, it should be noted that only self- and peer-report were used, and the study looked at bullying others and being bullied using the same cut-point criteria. Therefore, it remains unclear whether the same threshold would be applicable to other respondents, such as parents or teachers.

Informants

Self-report is the most commonly used format (Branson & Cornell, 2009), whose major strength lies in the use of a first-person perspective allowing unique insights (Ladd & Kochenderfer-Ladd, 2002). Some have claimed that this is a reliable way to gather information (e.g. Ahmed & Braithwaite, 2004; Beran, 2008). However, this is disputed in a number of studies (e.g. Herba et al., 2008; Owens, Dally, & Slee, 2005) that argue that self-report as the sole source of information may be unreliable, and that children aged 7 and under may struggle to complete questionnaires accurately (Wolke, Woods, & Samara, 2009). A worrying finding has been that some pupils, clearly identified as victims by their peers, did not report being victims themselves, suggesting that denial or lack of awareness (Griffin & Gross, 2004) and less developed cognitive skills (Ladd & Kochenderfer-Ladd, 2002) may lead to under-reporting (Cornell & Brockenbrough, 2008). However, self-report has also been accused of over-reporting, due to social desirability and response bias (Morbitzer, Sprober, & Hautzinger, 2009). Beran (2008) acknowledges that adult informants should be used if possible to validate children's responses. Nevertheless, self-report

is usually conducted anonymously, meaning that it is often not possible to match it to other respondents (Cornell & Brockenbrough, 2008).

Peer-report and peer nominations have had some success (Ladd & Kochenderfer-Ladd, 2002), and a strength lies in the fact that the information comes from many sources, such as all the children in a particular class (Branson & Cornell, 2009), are time efficient (Hartung et al., 2011), and allow access to social contexts from which adults may be excluded (Ladd & Kochenderfer-Ladd, 2002). However, similar to self-report, they have been viewed as less reliable the younger the child (e.g. ibid.), and children may nominate their peers for reasons other than those requested (Cornell & Brockenbrough, 2008). In addition, there are concerns that there are no agreed criteria for the number of nominations needed to identify victims (Branson & Cornell, 2009), and that class-wide consent is often difficult to obtain (Hartung et al., 2011).

Teacher-report has been used in a number of studies and may be of value, in that teachers could be judged more likely to be aware of bullying at school than parents. Indeed this has been found to correlate well with naturalistic observation (Nansel et al., 2001), and also peer nomination (Cornell & Brockenbrough, 2008). Nevertheless, this report format has drawbacks, as teachers are unlikely to witness all incidences of bullying, and children may be reluctant to report being bullied (Whitney & Smith, 1993), although this is less so in younger age groups (Bonnet et al., 2009). Furthermore, teachers vary in attentiveness and relational bullying can be hard to spot (Griffin & Gross, 2004). However, there has been considerable work undertaken in schools in England to tackle the problems of bullying, with staff now more attuned to recognising some of the more subtle behaviours (Maunder et al., 2010). This should indicate that teachers are more reliable respondents than may have previously been the case.

Parent-report could be under-representative, as parents may not be aware of the social experiences of their child at school, although research suggests that younger children are more likely to tell a parent about an incident than older ones (Bowes et al., 2009), and parents may have a better understanding of the conceptual definitions of bullying than children (Smorti et al., 2003). While a child may not report being bullied if he/she feels embarrassed or degraded, behaviour may change as a result of

it: something of which parents are more likely to be aware (Nordhagen et al., 2005). Nevertheless, Shakoor et al. (2011) found that despite low agreement, mothers could be valid and reliable informants regarding their child's victim status, possibly even more so than teachers, although this may be less true as children get older.

Cross-informant agreement is an area that is receiving increased interest in the light of the multiple possibilities for gaining information about bullying. While all report formats have their relative strengths and weaknesses, it is likely that the most reliable information emerges in studies which utilise multiple informants (Bonnet et al., 2009), especially as some children (whether due to age or cognitive limitations) may struggle to report being bullied accurately. Furthermore, having parent and teacher-report, especially in the case of young children, could help to tap into two important contexts, home and school. Agreement between informants tends to be low or modest at best (e.g. Achenbach, McConaughy, & Howell, 1987; Branson & Cornell, 2009; Cornell & Brockenbrough, 2008), rising only gradually with age, raising questions over whether victimisation is perceived similarly or differently by respondents and whether any format (or combination of formats) is valid and reliable. Nevertheless, low agreement does not necessarily indicate poor information, instead offering multiple perspectives of interest on the phenomenon (Schwartz, Gorman, Nakamoto, & Toblin, 2005). In addition, a multi-informant approach has been found to have better predictive strength for future outcomes than single informant (Swearer, Espelage, et al., 2010) and may be useful in reducing respondent bias and distorted data (Christiansen & Evans, 2005).

Sample and design differences have been noted as concerns (Lien, Green, Welander-Vatn, & Bjertness, 2009; Yang, Kim, Kim, Shin, & Yoon, 2006), with many studies focusing on one stage in education (e.g. primary or secondary) that may not generalise to children at another stage. Similarly, varying sample sizes make comparison between studies more problematic. Furthermore, differences in analytical strategies (e.g. how data are grouped and categorised) are likely to have an impact on findings, as are low consent and/or response rates, which are not always reported (Griffin & Gross, 2004).

While the majority of bullying research is quantitative in nature, there are a number of qualitative studies that rely on observation and interview. These qualitative

approaches tend to be better suited to exploring the nature of bullying rather than prevalence, largely due to smaller sample sizes (e.g. Gamliel, Hoover, Daughtry, & Imbra, 2003). Interviews can also provide a detailed insight into bullying, but as in the case of observations, they are time-consuming, and there is the additional concern that children may be reluctant to discuss their experiences in face-to-face interviews (Hartung et al., 2011).

1.4.3 Conclusion

Thus, prevalence cannot be compared accurately across research studies due to multiple methodological inconsistencies that are yet to be addressed satisfactorily by the research field. This is a vital consideration in the current study, as it is clear that some approaches are more reliable than others. Nevertheless, some trends do emerge, such as the acknowledgement that bullying is a pervasive problem that is likely to affect a significant minority of children and young people. This realisation has necessarily sparked considerable interest into the potential risk factors and consequences of bullying, along with those aspects that may contribute to reduced bullying (protective factors). These issues are explored in detail in the next section.

1.5 Risk and protective factors

1.5.1 Defining risk and protection

Despite on-going issues connected with both defining and measuring bullying, there are a number of factors that appear to be associated with being bullied. Some of these may predict being a victim of bullying and thus be considered risk factors, and others may be either predictors or consequences of it, while some may protect against bullying. A review of the literature reveals that remarkably few studies into risk and protection associated with bullying actually define these key terms. However, as they are central to this study, it is opportune to offer some background and definitions.

Risk: Research into risk has its origins in epidemiology (Garmezy, 1994). Risk factors are defined as "variables that are associated with an increased likelihood of poor physical, emotional and behavioural outcomes" (Gewirtz & Edleson, 2007, p. 151), with chronic rather than short-term risks thought to be more damaging (Garmezy & Masten, 1994). Risk has been explored since the inception of bullying research, and early attempts were made by Olweus (1993) to try to identify those factors which were associated with becoming a victim (as well as a perpetrator) of bullying. In their meta-analysis of predictors of bullying and victimisation in adolescence, Cook et al. (2010) identified 13 predictors, eight representing individual characteristics and five representing contextual factors[2]. While Cook and colleagues concede that their list is not exhaustive (the 1622 studies initially found were reduced to 153 following use of strict exclusion criteria), it does nevertheless represent the main areas studied in the literature.

***Protection*:** Research into protective factors came from longitudinal studies of at-risk young people who did not suffer adverse outcomes (Gewirtz & Edleson, 2007). There are competing theories of protection that endure in research. One popular theory is that a protective factor lies at the opposing end of the dimension of risk (Dubow & Luster, 1990). An alternative explanation proposed by Rutter (1987) is that protective factors interact with risk factors to mediate their effect. In their aggregation of indices of risk and protection for adolescent behaviour problems,

[2] The factors identified are: age, gender, internalising and externalising behaviour, social competence, self-related cognitions, other-related cognitions, academic attainment, family/home environment, school climate, community factors, peer status and peer influence.

Feinberg, Ridenour, and Greenberg (2007) conclude that Rutter's approach is more restrictive, and that it is generally preferable to regard a protective factor as "a positive element that is negatively associated with poor outcomes" (p.507), resulting in either "the absence of risk or presence of protection" (p.507-8). This is the approach that was adopted in this study, as many of the variables could be dichotomised and viewed at the opposite end of the dimension of risk (e.g. use of public/school transport or not, gender). The coding of variables is discussed in detail in Chapter 3.

Additive risk models: The identification of risk and protective factors lies at the heart of much of the research into bullying. However, to see these factors in isolation is to ignore the important question of the extent to which (in combination) they can predict a child's vulnerability to bullying, and also their strength relative to one another. A useful way to explore overall risk is to enter variables into a multiple regression model. This allows all possible predictor variables to be assessed and provides an overall model fit in terms of variance that can be explained (Field, 2009). Further to this, an additive model provides a convenient way to explore the relative strength of predictors by comparing the significant standardised coefficients found in the multiple regression model. A disadvantage of additive models, however, is that they take no account of the fact that risk factors are interdependent or that they may cluster within individuals (Flouri & Kallis, 2007). Nevertheless, an additive model using multiple regression remains a valid way to explore the significance of predictor variables and their relative strength in relation to the risk of being bullied. Thus, the additive model was the initial approach chosen for the current study.

Cumulative risk models: The cumulative risk hypothesis is more concerned with the number of predictors rather than their relative strength (Appleyard, Egeland, van Dulmen, & Sroufe, 2005) and has its origins in the study of maladjustment (Rutter, Cox, Tupling, Berger, & Yule, 1975). In this study it was found that no risk factor in isolation was a significant predictor of behaviour problems, but when a child was exposed to two or more factors, there was up to a four-fold increase in behaviour problems. Furthermore, it is of note that there is no set limit on the number of risk factors that can be analysed (Lima, Caughy, Nettles, & O'Campo, 2010). Thus, a cumulative model can explore with a degree of flexibility the question of how a problem increases according to the number of risk factors: is there a proportionate

linear increase, or a saturation point at which an increasing number of risk factors start to have a less marked effect, or is there an exponential relationship where bullying increases disproportionately in relation to the number of risks? The cumulative risk model has been used in many areas of medical and psychological research, but a review of the bullying literature reveals that this model has rarely been explored, with Pepler, Jiang, Craig and Connolly (2008) providing one of the few studies to explore this, although using a different methodology to the current study. A criticism of cumulative risk models is that unlike additive ones, they do not take the relative importance of each risk factor into consideration, treating them all as equal, when in fact different risks do have different effects on the outcome variable (Hall et al., 2010). This model has not been explored at all in the context of children with ASD and so was chosen as an appropriate exploratory approach for the current study, in which additive and cumulative models could be explored within a single piece of research.

***Risk and protection in context*:** Multiple contextual domains are frequently considered when assessing risk and protection, following Bronfenbrenner's ecological taxonomy (Bronfenbrenner, 1979b). For example, Feinberg et al. (2007) consider that individual and peer, school, family and community domains all need to be assessed, as they reflect the environments in which children experience their lives. In a context specific to understanding school bullying, Cowie and Jennifer (2008) propose an ecological model based on one promoted by the world Health Organisation which includes individual, interpersonal, community and the wider society. Furthermore, risk and protective factors are thought to act both directly and indirectly (Rutter, 1987), meaning that their study may become extremely complex, with the individual contribution of factors difficult to assess.

A discussion of all the possible risk factors for bullying lies beyond the scope of this review; however, those pertinent to the current study are discussed in the following section. This begins with factors at the level of the child, followed by those relating to school and family factors, and concluding with a consideration of potentially vulnerable groups and the feasibility of having a profile of a typical victim of bullying.

1.5.2 Individual factors

Age: Olweus (1993) identified early on that children are bullied less as they grow older (with the curve less steep in secondary compared with primary school), possibly because much of the bullying is carried out by older pupils. This finding has been replicated in numerous studies (e.g. Bowen & Holtom, 2010; Dulmus, Theriot, Sowers, & Blackburn, 2004), making it potentially one of the more robust findings in terms of risk factors for bullying. While some studies have refuted this (e.g. Johnson et al., 2002, found similar levels among primary school children of different ages), these studies remain a minority. Nevertheless, there is little research that covers wider age ranges and more than one school phase, making the true trajectory more difficult to assess with accuracy, and ignoring the possibility of certain peaks, such as at times of transition from primary to secondary school.

Gender: Another relatively robust finding is that boys are more likely to be victims than girls (Cook et al., 2010; Hanish & Guerra, 2000). This is likely to be the case because boys tend to be more socially aggressive, engaging in more physical play and games (Olweus, 1994). However, when relational/indirect bullying is also considered alongside physical and verbal bullying, the gender differences become less marked (Borntrager et al., 2009; Olweus, 1993), and it is suggested that that this difference may no longer be present in older children (Dao et al., 2006). While non-physical bullying is more common than the physical form in both girls and boys, girls are more likely to be victims of indirect and relational bullying than physical bullying (Owens et al., 2005). A possible explanation for this is that girls tend to focus on relational issues when socialising (Crick & Grotpeter, 1995), with the consequence that hurtful behaviour is more likely to be conveyed through relational rather than overt means. However, Borntrager et al. (2009) note a recent trend among girls to behave more aggressively and for this sort of behaviour to be more tolerated in contemporary society. Thus, there may be a concomitant increase in more direct forms of bullying among girls, and this is an area that warrants further investigation.

Social relationships with others need to be seen in the wider context of social functioning. This is an area that has generated considerable interest, with many studies finding that victims of bullying exhibit a range of social difficulties, particularly with regard to peer relationships. These difficulties relate to:

- *Lack of social understanding*: victims of bullying may have difficulties in interpreting social situations, including the intent of others, meaning that they enter into social interactions inappropriately (Garner & Stowe Hinton, 2010). This may precede or lead to a vicious cycle of rejection by the peer group, as poor social understanding leads to fewer friendships being formed, which in turn may isolate victims, deterring other children from becoming their friends and singling them out as easy targets for bullies (Laine, Neitola, Auremaa, & Laakkonen, 2010).
- *Poor peer relationships*: a lack of friends or poor quality friendships are strongly associated with vulnerability to bullying (Goldbaum, Craig, Pepler, & Connolly, 2003; Hodges, Boivin, Vitaro, & Bukowski, 1999), with the potential to lead to loneliness and rejection by peers (Craig & Pepler, 2003), and social withdrawal (Hawker & Boulton, 2001). Low social status with the peer group and antipathic relationships have long been associated with higher levels of victimisation and may be both risk factors and consequences of bullying, as part of a vicious cycle of negative relationships (Card & Hodges, 2007).
- *Perceived "difference" or deviation from the peer group*: social difficulties are likely to identify a child as being different from peers (e.g. in terms of appropriate behaviour and communication), and this can lead to children being rejected and isolated, as conformity to the peer group is important for children and young people (Horowitz et al., 2004). Once excluded from the peer group, children become particularly easy targets, because they are unlikely to have protective friendships, and other children (who may be sympathetic to their plight) may be deterred from getting involved, due to the risk of becoming targets of the bullies themselves (ibid.).

Conversely, positive peer relationships are thought to moderate the risk of being bullied (Abou-Ezzeddine & Schwartz, 2007), something that has been confirmed in a number of studies: for example, Card et al. (2008) found that friendship, if of high quality, can offer some protection against bullying.

Behaviour problems (externalising behaviours): A significant minority of children who experience bullying also have behaviour problems, including difficulties relating to hyperactivity and attention (Brock et al., 2006), and also anger-control

(Hampel, Manhal, & Hayer, 2009), which are likely to further exacerbate poor relationships with peers and rejection. In antagonising peers through aggression, victimised children may also be categorised as bullies (Borntrager et al., 2009), even if this was not the child's intention (e.g. the aggression was an over-reaction to a situation or an inappropriate attempt at self-defence) (Pollastri, Cardemil, & O'Donnell, 2010). A consequence of this is that the willingness of peers to protect or intervene is reduced (Card et al., 2008).

Psychological problems (internalising): While assessing the mental health of young people lies beyond the scope of this study, it is nevertheless important to note that many bullied young people demonstrate a range of internalising problems, and this is something that is widely thought to endure into adulthood if not addressed (Sourander et al., 2007). In their meta-analysis, Hawker and Boulton (2000) report depression as the most significant correlate but with loneliness, low self-esteem and anxiety also key factors. Self-harm (McMahon et al., 2010), suicidal thoughts, and even suicide (Herba et al., 2008; Klomek et al., 2007) have also been noted. While many studies have associated being the victim of bullying with internalising problems, some recent ones have established that these problems may be either antecedents or consequences of bullying (Card et al., 2008; Reijntjes, Kamphuis, Prinzie, & Telch, 2010). Perceived self-efficacy and low self-esteem have also been found to be implicated in being bullied (Card et al., 2008). As these internalising problems may manifest themselves as weakness or difference from the peer group, it is likely that as antecedents of bullying, such difficulties may identify children as attractive victims to bullies. As noted by Olweus (1993), these children may be shy, insecure and cry easily, meaning that they are unlikely to defend themselves robustly against a bully.

1.5.3 School-related factors

School (including location) & class size: While it has been assumed that there would be more problems with bullying in large classes and schools, neither Olweus (1993) nor Whitney and Smith (1993) found any significant differences. However, Gottfredson and DiPetro (2011) found the opposite for school size, with lower rates of bullying reported in bigger schools, but only when there was a lower ratio of

students to teachers. Similarly, Atria, Strohmeier, and Spiel (2007) found considerable variability in rates of bullying between classes, suggesting that the classroom dynamics and levels of supervision are more important than overall school size. This finding is supported by Klein and Cornell (2010) who found that reported bullying incidents are more common in larger schools as a result of there being more students and not because the actual prevalence is higher. Similarly, no clear differences have been found between urban and rural settings (e.g. Nansel et al., 2001; Olweus, 1993), countering suggestions that there are likely to be higher levels of violence in urban areas. Nevertheless, findings remain inconclusive, perhaps because so many other confounding factors are likely to be involved, such as school climate and management practices (Bonnet et al., 2009).

Academic attainment: Findings in this area have been mixed despite assumptions that attainment should suffer as a result of the negative peer interactions implicated in being bullied. Nevertheless, strong correlations have been found between low academic performance and victimisation in a number of studies. For example, Green et al. (2010) found that bullied pupils in Key Stage 4 had significantly lower GCSE results than their non-bullied counterparts, even after controlling for other factors. These mixed results may indicate that academic attainment is only indirectly affected by bullying, and may in fact occur in combination with other factors at school, such as poor social adjustment (Swearer, Siebecker, et al., 2010). In the light of previous inconclusive findings, Beran (2009) investigated the link between bullying and achievement using an exploratory model. She found that low achievement was associated with being bullied, but only when in conjunction with other factors, such as levels of parent and teacher support, rejection and also behavioural problems, leading to the suggestion that there is a more complex and less direct relationship at work.

High attainment may also predispose a child to bullying from others (Card et al., 2008), especially if this singles out the child as distinct from the peer group. However, there is very little research in the area, with Peterson and Ray (2006) providing one of the very few studies. In confirming that gifted children appear more likely to be the victims of bullying, the authors point out that these children can become more isolated and lonely, powerful risk factors in their own right for becoming a victim of bullying.

Attendance: Low attendance (with a consequential impact on academic attainment) may also be linked to bullying, as a bullied child may become fearful and reluctant to attend school (Kochenderfer & Ladd, 1996). However, low attendance may also be a cause of bullying, in that a frequently absent child may be perceived as being outside the peer group, leading to social exclusion and bullying. About one third of persistently bullied children have been found to actively avoid school, including truancy (Smith, Talamelli, Cowie, Naylor, & Chauhan, 2004).

Transport to/from school: While about two thirds of bullying is thought to take place at school (Monks et al., 2009), another time and place linked to the experience of school bullying and when children are largely unsupervised, is travel to and from school by public/school transport (Bowen & Holtom, 2010; La Fontaine, 1991). There has been a surprising lack of research into this, despite Whitney and Smith (1993) noting it in the early Sheffield study. Raskauskas (2008) is one of the very few to have conducted research in this area. In her video study, she noted an average of two incidents per bus ride, with it happening more often on the journey home, concluding that it is a very real problem that warrants further investigation.

***Involvement in extra-curricular activities*:** Similar to travel to and from school, extra-curricular activities may be less structured, generating increased opportunities for bullying. There is little research in this area, although there are a small number of studies that mention out-of-school clubs and activities as having increased potential for bullying (Olweus, 1993), and this may feasibly be extrapolated to the school setting. In a similar vein, McNeely, Nonnemaker, and Blum (2002) found that children who attended extra-curricular activities tended to have higher levels of school connectedness, which is thought to be a protective factor against bullying, as these children are more likely to be well accepted by their peers.

1.5.4 Family factors

Socio-economic status (SES): While there are many studies that explore family and community variables, most of these lie beyond the scope of the current study. Nevertheless, one piece of information that is often used to assess SES, is eligibility for free school meals (FSM) (Hobbs & Vignoles, 2010). It could be reasonable to assume that being of lower SES compared to peers may lead to bullying, due to

perceived social inequality and lack of material items that are identified with a peer group Although Olweus (1993) did not find any association between being bullied and low SES, they have been identified in Year 7 pupils in Wales (Bowen & Holtom, 2010) and also in the HBSC Survey (Due et al., 2009). Nevertheless, these findings are not supported in other research which indicates little or no association (DCSF, 2008a; Whitney & Smith, 1993).

Parental engagement: There is no known published research into links between parental engagement and bullying, but Card et al. (2008) speculate in more general terms about "cooperative alliances between parents and teachers" (p.129) as important in an ecological taxonomy that acknowledges the many levels and factors contributing to a person's experience of the world. While it is possible to speculate that engaged and content parents are less likely to have bullied children, or conversely that parents of bullied children are less content and feel less engaged in the school, this is an unknown area that, if demonstrated, could strengthen the argument for increased parental involvement.

1.5.5 Vulnerable groups

In addition to the identification of certain factors that may predispose a child to being bullied, there are also groups of children who are particularly vulnerable to bullying due to other perceived differences that make them different from the majority of other children in some way. Homophobic bullying is an area of on-going concern, particularly as children approach and enter adolescence, and indeed, there is evidence that this type of bullying is prevalent in English secondary schools. (Green et al., 2010).

Race has also attracted attention, but findings have been inconsistent, with no clear correlations. In their recent assessment of bullying, Green et al. (2010) found that children in England aged 14-16 from ethnic minority groups were less likely to be bullied than their white counterparts, although they concede that issues of racist bullying are extremely complex. Frederickson and Cline (2009) suggest that it is not ethnicity as such which is a risk factor for bullying, but rather the minority status of those pupils within a school.

Green et al. (2010) also found a very strong link between in-care status and victimisation, with the actual incidence rising with age among 14-16 year olds, contrary to the usual bullying trends. This could be due to a child's perceived difference from peers but is also likely to stem from the fact that this group of young people has encountered difficult and distressing domestic circumstances (e.g. parental rejection, abuse or lack of a protective home environment).

1.5.6 Who are the victims of bullying?

Thus there are many factors that may predispose a child to becoming the victim of bullying, and these may exist at several different levels of influence, with certain groups more vulnerable. While a large proportion of the early bullying literature tends to dichotomise roles into bully and victim (Wolke, Woods, Stanford, & Schulz, 2001), a review of the literature demonstrates that there has been a more recent move to explore the roles taken in bullying including those of the victim, and to question the divide between aggressor and victim. Indeed, even in his early research, Olweus (1993) noted that not all victims behave in the same way and divides them into *passive/submissive victims* and *provocative victims*.

Passive/submissive victims are characteristically sensitive, anxious and insecure children with low self-esteem, who cry easily and struggle to form good quality friendships among their peers, leading to isolation and rejection. Olweus states that they do not provoke aggressive behaviour from others, and that it is their submissiveness that marks them out as suitable victims, as they are unlikely to retaliate.

Nevertheless, he points out that a minority of bullied children whom he calls *provocative victims* do not adequately fit this description: not only are they anxious, but they also react to situations with aggression and may behave in ways that antagonise those around them. In their meta-analysis of bullying and victimisation, Cook et al. (2010) give succinct profiles of both victims and bully-victims:

> The typical victim is one who is likely to demonstrate internalizing symptoms; engage in externalizing behavior; lack adequate social skills; possess negative self-related cognitions; experience difficulties in solving

> social problems; come from negative community, family, and school environments; and be noticeably rejected and isolated by peers.
>
> The typical bully-victim is one who has comorbid externalizing and internalizing problems, holds significantly negative attitudes and beliefs about himself or herself and others, is low in social competence, does not have adequate social problem-solving skills, performs poorly academically, and is not only rejected and isolated by peers but also negatively influenced by the peers with whom he or she interacts (p.76).

These descriptions are useful summaries of the risk factors mentioned above and incorporate factors influenced by the individual, school and family. These two groups of victims have been found consistently in the literature, with a minority of victims thought to be *provocative victims* (Borntrager et al., 2009). In addition to the negative outcomes associated with being a victim of bullying, these children (also referred to as *aggressive victims* and *bully-victims*) have the added outcomes associated with being a bully, and may encounter the "worst of both worlds" (Cook et al., 2010, p. 78). They are at increased risk of a range of negative social outcomes (Griffin & Gross, 2004, p. 387), with a greater likelihood of remaining victims over time (Smith, Nika, & Papasideri, 2004). Schwartz, Proctor and Chien (in Juvonen & Graham, 2001, pp. 145-174) have further divided provocative victims into two groups, depending on whether aggression is more controlled or impulsive, but it is not known whether this behaviour precedes being bullied or is as a consequence of it.

1.5.7 Conclusion

While difference was initially rejected by Olweus (1993) as a reason for identifying victims of bullying, there is considerable evidence to suggest that not all differences are equal. Some factors that make a child conspicuous, such as poor social skills or behavioural problems may in fact make a child considerably more likely to be bullied. Nevertheless, from a review of the literature, it would seem more likely that it is a toxic combination of risk factors than conspire to make an individual particularly vulnerable to bullying, and this can be seen clearly in the case of bully-victims. In this context, children with special educational needs and disabilities (SEND) may also present as a particularly vulnerable group, and yet there is a lack of research in this area compared to children in general. This is of importance for the current study, as children with an ASD are part of the broader category of SEND.

1.6 Special educational needs and disabilities (SEND)

Children and young people with SEND are defined as those "who have learning difficulties or disabilities that make it harder for them to learn or access education than most children of the same age" (DCSF, 2008b). These children currently constitute just over 20% of all school-age children in England (Ofsted, 2010) and therefore represent a significant minority, a subsection of whom with ASD are the focus of the current study.

The seminal Bergen Study (Olweus, 1993) makes no mention of children with SEND, despite using large samples and at a time when these children were already an acknowledged group in education. Nevertheless, additional research alongside the Sheffield Study (Whitney & Smith, 1993) involved investigating bullying in this group of children in inclusive settings, reporting that they appeared especially vulnerable (Whitney, Smith, & Thompson, 1994). Characteristics associated with being victims of bullying were found to be a lack of protective relationships with peers, difference associated with their SEND, and behavioural issues: all major factors implicated in being either a victim or bully-victim. Nevertheless, it is of note that the majority of studies tend to look for particular risk factors for bullying, but rarely look at having SEND as a risk factor in its own right, on occasion even excluding these children from the study (e.g. Peskin, Tortolero, & Markham, 2006). Not only does this type of study omit an important sector of school-age children, but it also fails to address the needs of a group that may be among the most vulnerable in terms of bullying.

Fortunately, there have been a number of developments in attitudes and approaches to bullying in the UK in recent years. A report from Mencap (2007) called *Don't stick it! Stop it!* found that 82% of children with learning disabilities reported having been bullied. The respondents were from special schools and special units in mainstream schools. Nevertheless, while these figures are disturbingly high, the report does not go into detail about how bullying was defined, nor does the report define *learning disability* or the different needs of the respondents, making the findings difficult to generalise. In contrast to this, the first interim report of the evaluation of *AfA* (Humphrey et al., 2010) reported lower levels when using a definition-based questionnaire about bullying, with nearly two thirds of the

nationally representative sample reported as not bullied. However, the recent DfE-funded report into characteristics of victims of bullying aged 14-16 in secondary schools in England (Green et al., 2010) identified those with SEND as "more likely to report all types of bullying than other young people" (p.44) and that their vulnerability stemmed from difference from peers. An acknowledged limitation was that SEND as a group was not broken down into its different categories.

One of the main recommendations in the *Lamb Inquiry* (2009), which was commissioned by the DCSF to investigate special educational needs and parental confidence, was that bullying of children and young people with SEND should be reviewed at a matter of urgency. In response to this, the *Anti-Bullying Alliance* commissioned a project to develop effective anti-bullying practice in schools. One of the early stages involved a comprehensive review of the literature (McLaughlin, Byers, & Peppin Vaughan, 2010) which confirmed the recent findings in the UK, noting that children and young people with SEND are at disproportionate risk for bullying and that the most likely risk factors cluster around social skills and communication difficulties. Despite the relatively small SEND research base, there is no lack of studies implicating poor social functioning as predictors of being bullied (e.g. Bejerot & Mortberg, 2009; Frederickson, 2010; Twyman et al., 2010).

Luciano and Savage (2007) corroborate findings on social difficulties and also suggest that communication, speech and language difficulties may be heavily implicated in becoming bullied. The reason for this is linked to social interaction problems, as the ability to interact with peers is vital in forming relationships. It is feasible that children who have difficulties in expressive and receptive language in particular may automatically be at a disadvantage when interacting with peers.

Another risk factor that is specific to children with SEND is the amount of support they receive in school that may, inadvertently, reinforce bullying behaviour from peers. As far back as 1993, Nabuzoka and Smith identified that children who seek more help in school tend to be less liked by their peers, while in subsequent research Nabuzoka has indicated that those children who do seek help tend to be targeted more by bullies (Nabuzoka, 2003). In England, there are varying levels of support

according to the severity of a child's needs[3], all of which indicate more reliance on staff support. It is not known whether bullying varies depending on the amount of support provided, although there are two possible hypotheses: first, children with higher levels of support may be protected from bullying because opportunities for bullying are limited as a result of adult support; alternatively, it may exacerbate the sense of difference, making bullying more likely. Unfortunately, there is no published research to date on this, representing a notable gap in research. In a similar vein, there can be stigma associated with receiving special education, and up to half of children have reported being bullied because of their special needs (Norwich & Kelly, 2004).

The risk of bullying persists in both mainstream and special schools, with no apparent difference in prevalence between settings (McLaughlin et al., 2010), although there remain some inconclusive and inconsistent findings. For example, Luciano and Savage (2007) found that children with learning difficulties suffer significant bullying in mainstream schools, but did not compare levels with special schools, while Rose, Monda-Amaya, and Espelage (2011) found higher levels in special education settings. That bullying exists in both settings is not disputed, yet a point of concern revolves around the actual inclusiveness of the setting. With this in mind, McLaughlin et al. comment that "Although designed to bring integration and equality in social relations, can special interventions exacerbate perceptions of difference, and even victimisation due to 'special treatment'?" (2010, p. 38). Similarly, it has been noted in other studies that inclusion does not necessarily equate with improved social relationships (e.g. de Monchy, Pijl, & Zandberg, 2004)

There are also many comorbidities associated with SEND (e.g. ASD is often co-morbid with attention deficit hyperactivity disorder (ADHD) type behaviours, Ghazuiddin, 2005), and research such as that by Norwich and Kelly (2004), found that most children with moderate learning difficulties (MLD) presented with one or more other areas of difficulty. Furthermore, it is thought that the risk of victimisation is additive, in other words, the more risk factors or difficulties a child has, the more

[3] Special needs provision in England is divided into School Action (SA), School Action Plus (SAP) and a Statement of Special Educational Needs. At SA the child's needs are met from existing school resources; at SAP external agencies are likely to be used to assess and/or support the child; a Statement is provided to those children for whom SA and SAP have been unable to meet their needs. To have a Statement involves a statutory assessment that, if approved, results in provision of support and resources for the child that are legally binding.

bullying is likely to occur (Sweeting & West, 2001). Behavioural problems resulting from a lack of social competence in children with SEND may further ostracise them, making them more likely to be deemed provocative victims (Whitney, Nabuzoka, & Smith, 1992).

Research into bullying of children with SEND tends to divide into two categories: one in which all children with SEND are treated as a homogenous group, and the other in which types of SEND are looked at in isolation: for example, those with speech, language and communication needs (SLCN) (Knox & Conti-Ramsden, 2003), behavioural problems (de Monchy et al., 2004), dyslexia (Singer, 2007), and autism (Bejerot & Mortberg, 2009). There have been some interesting findings to emerge from studies of pupils with SEND as a single group. Contrary to a reduction in bullying with increasing age, some research has suggested that the opposite may be true for children with SEND, because their differences are more apparent as they grow older (Savage, 2005), and they may become more rather than less dependent on their peers, potentially leading to more rejection (Kuhne & Wiener, 2000). Others have suggested that children with SEND may have more difficulties than their typically developing (TD) peers in both recognising and reporting being bullied (e.g. in the case of ASD, van Roekel, Scholte, & Didden, 2010), or feel too intimidated to report it (Whitney & Smith, 1993).

However, while exploration of distinct categories of SEND would be beneficial in terms of assessing whether bullying affects certain groups differently, there remain few studies in this area, with inconsistent findings a feature of those that have been conducted. For example, in relation to children with SLCN, Knox and Conti-Ramsden (2003), found this group to be at increased risk of bullying compared to their non-SEND peers, while Lindsay, Dockrell and Mackie (2008) found no differences. One potential reason for inconclusive findings in this type of research is that sample sizes tend to be much smaller than in the general bullying field, making satisfactory conclusions more difficult to draw (for a review of studies, participant numbers and prevalence see Rose et al., 2011).

In terms of protection against bullying, as for general bullying research, good social skills and relationships with peers are likely to represent a protective factor against being bullied. This has been suggested in a number of studies (e.g. Bejerot &

Mortberg, 2009), although Luciano and Savage (2007) argue that children with SEND may often be unable to form the sort of quality friendships that can protect them against bullying. The lack of research and inconsistent findings in this important area represent a gap in the field that warrants further investigation, one which will be addressed for children with an ASD in the current study.

1.7 Summary statements

- Bullying is a frequent and insidious phenomenon that is relevant to all young people despite a relatively recent research literature.
- Seminal research, such as the Bergen Study in Scandinavia (Olweus, 1993), generated international interest and triggered subsequent studies.
- It is now a statutory requirement for anti-bullying policies and effective strategies for dealing with bullying to be embedded in the day-to-day running of English schools.
- There is no consensus on the definition of bullying, although Olweus' (1993) early version remains highly influential. Nevertheless, some argue for greater flexibility in definition, as bullying is dependent on the context in which it takes place.
- There is a greater sense of consensus regarding types of bullying, with direct and indirect forms now attracting more equal attention in the literature.
- Prevalence is disputed, largely due to wide-ranging methodological discrepancies, such as different measurement tools, varying time-frames, different informants, and study design.
- The many and varied risk factors that have been investigated offer a broad range of findings. There are a number that appear robust such as age, gender, social relationships, behavioural problems, academic attainment and attendance, while there are others of interest that have had little or no research to date, such as travel using public/school transport and parental engagement.
- There is little research into protective factors, although positive social relationships have been found to reduce the likelihood of being bullied.
- Researchers have produced profiles of typical victims and bully-victims, and it is likely that different risk factors combine to form an "explosive combination of in-group failure and a specific individual child with certain catalysing characteristics" (Orobio de Castro, 2007, p. 397)
- Children with SEND appear disproportionately vulnerable to bullying.

CHAPTER 2 AUTISM SPECTRUM DISORDERS AND BULLYING

2.1 Introduction

Autism spectrum disorders (ASD) are a group of pervasive developmental disorders that have attracted increasing attention world-wide since the middle of the last century when autistic symptoms were first described by Leo Kanner (Kanner, 1943) and Hans Asperger (Asperger, 1944). In this chapter ASD is explored, along with a brief historical context and the accompanying debates and controversies relating to definition and diagnosis. Following this, there is a review of the literature on how ASD may impact on a child's education and affect vulnerability to bullying. For example, the debate over inclusion for this group of children is considered in the context of both mainstream and special education. Is inclusion a viable option for a group of children who may have particular needs that are distinct from those of other children, or does it serve ideology rather than practical needs, potentially predisposing already vulnerable children to bullying?

The extant literature on bullying of children and young people with ASD is then investigated. There is little published research to date that specifically addresses vulnerability to bullying in this group, so these studies are explored in detail, highlighting both their strengths and limitations and identifying gaps in the field. Given the paucity of studies in this area, risk and protective factors for bullying are also assessed in light of the research field into difficulties encountered by children with ASD. The ultimate aim in this section is to reconcile general risk and protective factors for bullying with the vulnerabilities of these children with ASD in their day-to-day lives through the existing body of research. While much of the current ASD literature focuses on difficulties arising from the developmental disorder, and are therefore essentially seen as arising within the child, consideration is also given to contextual factors that have been shown to influence the risk of bullying in the literature. This leads into the rationale and research questions that guide this study.

2.2 Autism spectrum disorders

2.2.1 Background

Autism is a spectrum condition, now commonly referred to collectively as ASD, that has only come to light medically and academically in the last 70 years, although descriptions of individuals who could be identified as having autism can be documented over several centuries and in many different cultures (Newschaffer et al., 2007). While once considered a form of childhood schizophrenia, it did not appear in the *Diagnostic and Statistical Manual of Mental Disorders* until the third edition (*DSM-III*) (American Psychiatric Association [APA], 1980), with Asperger Syndrome (AS) appearing even later in the *DSM-IV* (APA, 1994). Understanding of autism has evolved significantly over the decades, with early assumptions that poor parenting was to blame (e.g. in the case of the *refrigerator mother* supported by Bettelheim from the 1950s to 1970s), now discredited in favour of genetic and biological bases for the disorder (Feinstein, 2010). It is beyond the scope of this thesis to explore the possible causes of autism; however, despite a number of compelling biological, psychological and cognitive theories, it is of note that none of them are able to explain all of the complexities of ASD in its own right (for an overview, see Roth, Barson, Hoekstra, Pasco, & Whatson, 2010).

2.2.2 Definition and diagnosis

Definition

ASD is a group of pervasive developmental disorders, and is made up of autism (also known as early infantile autism, classical autism, childhood autism and Kanner's autism), AS and pervasive developmental disorder not otherwise specified (PDD-NOS, also known as atypical autism) (APA, 2000). Two main sources are used to inform the definition and diagnosis of ASD: these are the *DSM-IV-TR* (APA, 2000) and the *International Statistical Classification of Diseases*, 10th Revision (ICD-10) (World Health Organisation, 1992). ASD is described in broadly similar terms in both works, with the acknowledgement that there is great variation in the range of symptoms. The main impairments are divided into what has become known as the triad of impairments: "markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and

interests" (APA, 2000, p. 20) that should have been in evidence before the age of three. This is illustrated in Figure 3 below.

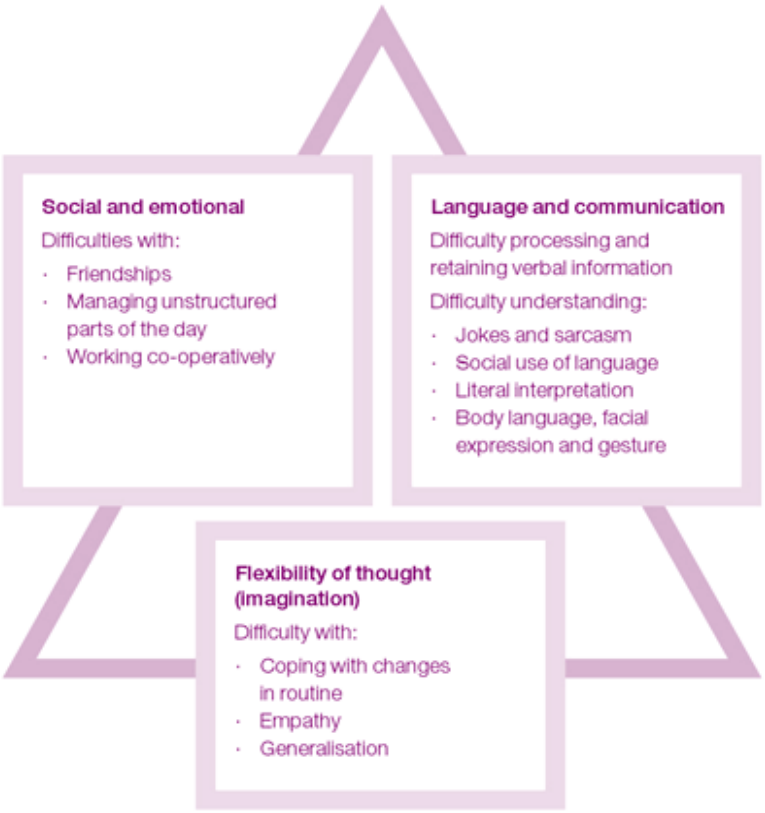

Figure 3: The triad of impairments (National Autistic Society [NAS])

Sensory sensitivity is another area that has attracted recent attention, with high reported incidence of both over- and under-sensitivity to certain stimuli (e.g. Liss, Saulnier, Fein, & Kinsbourne, 2006), but although there are arguments for its inclusion as part of the diagnostic criteria in the planned *DSM-V*, this is yet to be confirmed (Wing, Gould, & Gillberg, 2011). Cognitive impairment is found in around three quarters of cases of ASD, but the condition includes individuals with the full range of intelligence. The criteria for AS is similar to that for autism, except that there is no apparent delay in language acquisition, with these children often "talking before walking" and demonstrating a "precocious" use of language (APA, 2000, p. 81). AS is often considered to be at the milder end of the autistic spectrum, although there is considerable variation in severity within this category too (Attwood, 2007). PDD-NOS is diagnosed when one of the triad of impairments cannot be evidenced, or if onset is after the age of three.

Diagnosis

The criteria in both the *DSM-IV-TR* (APA, 2000) and the *ICD-10* (WHO, 1992) are used to inform diagnostic procedures. However, there are also concerns about variation in diagnosis even when similar tools and methods are used to identify ASD, due to the subjectivity of what is essentially a behavioural assessment (Lord et al., 2011).

There is no prescribed or statutory procedure for assessing and diagnosing a child with suspected ASD in the UK, although guidance was published by the National Autistic Society in 2003 (NAS, 2003) in the *National Autism Plan for Children*. As guidelines rather than regulation, this means that in reality there can be considerable variation in who assesses and diagnoses autism, ranging from a single practitioner (e.g. psychiatrist) to a multi-agency team. There is no single tool or measure to diagnose ASD, and instead a range of assessments tend to be used, incorporating different methods. For example, a clinician may ask parents to complete questionnaires such as the *Social Communication Questionnaire* (Rutter, Bailey, Lord, & Berument, 2003), and also use an observational instrument such as the *Autism Diagnostic Observation Schedule* with the child (Lord, Rutter, DiLavore, & Risi, 2003) or the *Autism diagnostic Interview - Revised* with parents (Lord, Rutter, & LeCouteur, 1994).

2.2.3 Prevalence

There has been much debate in recent years over the apparent rise in the number of children identified as having ASD. While it is possible that environmental factors may be implicated (e.g. Landrigan, 2010), there is consensus that the rise can be explained to a large extent by more inclusive diagnostic criteria and better awareness of the condition (King & Bearman, 2009; Matson & Kozlowski, 2011). Although there are no precise figures, it is currently thought that ASD occurs in approximately 1% of the population in the UK, with a ratio of approximately 4:1 male to female cases, with the disparity even greater at 10:1 in the case of AS (Roth et al., 2010). However, this disparity has begun to be challenged in recent years with the argument that there may be less gender difference in prevalence, due to different presentation of AS in females. The argument centres on girls presenting with more subtle

symptoms, and notes that much of the research to date has focused on studies involving boys (e.g. Daniel & Billingsley, 2010), or has samples that contain so few girls as to make comparison problematic (e.g. 115 boys and 18 girls in Sofronoff, Dark, & Stone, 2011). Thus, overall prevalence remains difficult to establish with accuracy. In the light of this, a re-appraisal and potential re-categorisation of ASD is proposed for the next version of the *DSM*, due to be published in 2013, when it is thought that previous diagnostic categories that currently come under the auspices of autism will be replaced with ASD as a single category (APA, 2012).

2.2.4 Conclusion

The disorders and conditions of the autism spectrum have received ever more attention in recent years, and this has been accompanied by advances in understanding, greater awareness in the medical profession and among the general public, and also increases in levels of identification and diagnosis. While concerns remain regarding the higher rates of diagnosis in recent years, it has been suggested that ASD may still be under-diagnosed and that the apparent rise in prevalence is a consequence of previous under-diagnosis (Taylor, 2006). Furthermore, the cost of ASD is high and has grown in recent years, with increased access to specialist support services, and it is recognised that the cost to the state is significant throughout the lifespan (Knapp, Romeo, & Beecham, 2007). Nevertheless, the fact remains that there are no blood-tests for ASD, and in many cases it remains a hidden disability that many struggle to understand (Ravet, 2011).

While the debate continues at many levels, one key area that has drawn considerable attention in recent years is education. Children spend a substantial proportion of their life at school, and as such this time has a profound and significant impact on their development as a person and their ability to gain an adequate grounding both educationally and socially in preparation for adult life.

2.3 Inclusive education, ASD and bullying

With the challenges encountered in ASD largely centred on social interaction and difficulties in this area associated with increased vulnerability to bullying, it is possible that educational settings present not only opportunities but also barriers to successful learning and social development. In this section educational provision for children with ASD is considered within the framework of the inclusion debate that has occupied the collective educational psyche for more than three decades in England (and internationally). Following this, there is an examination of the inclusion of children with ASD within the context of vulnerability to bullying. The rationale for this is that bullying occurs in a social context (Griffin & Gross, 2004), and school is potentially the most significant social environment for children and young people, and also the one in which bullying is most likely to take place. What sort of educational environment best suits a child with ASD? Can children be fully included within mainstream schools that purport to have inclusive ideals at their core, or is more specialist provision still the best option for some or all, especially in the context of bullying?

2.3.1 The inclusion debate

In order to understand the debate over inclusion for children and young people with ASD, it is necessary to see it within the broader educational context. The acknowledgement that children with SEND should largely be educated in mainstream schools is not a recent phenomenon, with the Wood Committee of 1928 an early example of inclusive policy (Lindsay, 2007), and a major turning point in 1974 when the Warnock Committee (Warnock, 1978) introduced the idea of special educational needs, statements, and education for all in a mainstream setting wherever possible. A further crucial development came in the Salamanca Statement (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 1994) in which educational entitlement is laid forth. The resultant push towards more inclusive education has led to numerous measures in England, such as acts of parliament (e.g. the *Special Needs and Disability Act*, 2001), the *Special Educational Needs Code of Practice* first written in 1994, revised in 2001 and still currently used by schools in England (Department for Education and Skills [DfES], 2001), and the

Excellence for All Green Paper (Department for Education and Employment [DfEE], 1997).

The current situation is that full inclusion has not been achieved in the English education system, nor has this ever been the explicit stance of the government (Frederickson & Cline, 2009). Indeed, since the new coalition government came to power, there has been a call for less prescriptive practice, as stated in the Conservative Party's assertion that there was a need to "remove the bias towards inclusion" (DfE, 2011b, p. 5). Despite calling for greater inclusion in her 1978 report, Warnock (2007) has also questioned the drive towards an inclusive system in a context where the social rejection and bullying that appear to emanate from full inclusion may invalidate its claims for some pupils.

2.3.2 Educational inclusion of children with ASD

The number of children and young people with ASD who are educated in mainstream schools is estimated at 70% (DfE, 2010). Inclusion is believed by some to improve the social development and academic achievement of these children, while at the same time improving TD children's awareness and tolerance of others with SEND (Osborne & Reed, 2011). In the light of findings in general bullying research, this increased awareness and understanding should theoretically lead to a reduction in the risk of bullying. In terms of government attention to the education of children with ASD, there have been a number of attempts to raise awareness and highlight their needs, such as the setting up of an *All-Party Parliamentary Group on Autism* in 2000, publication of the *Autistic Spectrum Disorders: Good Practice Guidelines* in 2002 (DfES, 2002), a review conducted by the *House of Commons Education and Skills Committee* in 2006, and a specific focus on ASD in the second phase of the *Inclusion Development Programme* in 2009 (DCSF, 2008c). In addition, the NAS has also lobbied on educational issues, releasing the *National Autism Plan* in (NAS, 2003) and the *Great Expectations Report* in 2011 (Reid), stating that while inclusion remains the preferred option for children with ASD, there is a need for appropriate provision to reflect the needs of the child, and that in many cases parents feel that a special school is the most appropriate option.

Approximately 30% of children and young people with ASD attend special schools, some of which are autism-specific, while others may have children with different types of SEND. Within mainstream schools, provision is also varied, with some schools integrating children full-time into classes with their peers: this may include additional support from teaching assistants and specialist support, whether in groups or on a one-to-one basis, perhaps using external professionals. A growing number of schools also have a unit/base or resourced provision for children with ASD within the school, allowing children with ASD to be educated in mainstream classes according to their specific needs (Frederickson, Jones, & Lang, 2010). When unsuccessful, this can be perceived as "segregated inclusion" (Humphrey & Lewis, 2008b, p. 138), whereas others counter that this is potentially where education in a mainstream school works best for children with ASD, and it tends to be the inclusive option that attracts the greatest level of parental support (Frederickson et al., 2010).

Given the triad of impairments characteristic of ASD, it is clear that inclusion has the potential to present challenges to most if not all children with ASD (for a comprehensive overview see Morewood, Humphrey, & Symes, 2011), and consequently increasing their vulnerability to being the victims of bullying. This is especially apparent in the case of the social and emotional difficulties that these children encounter. Myles and Simpson (2001) describe the "hidden curriculum" that exists within schools and which "includes the skills that we are not taught directly yet are assumed to know" (p. 279). For a child with ASD who lacks awareness of social skills, or who is yet to learn them, school can become a confusing or bewildering place. Difficulties in language and communication may further add to disengagement from peers, as, for example, literality of thought can prevent children with ASD from understanding the full nuanced language of the classroom (Humphrey & Lewis, 2008b). A lack of order and predictability at school, as well as interactions with peers can be problematic, due to difficulties with flexibility of thought (ibid.). Curriculum areas can also be challenging when imagination is required for subjects such as English and Drama (Harbinson & Alexander, 2009). Additional acknowledged areas of difficulty, although not within the diagnostic criteria for ASD, can cause further disruption, such as the natural hustle and bustle of a school, noisy classrooms, and bright, colourful environments, may lead to sensory

overstimulation and, as a consequence, high levels of anxiety and fear (Reed & Osborne, 2011; Wing, 2007).

ASD may also present difficulties to peers and school staff as a hidden condition (Ravet, 2011), in that children with ASD do not tend to look physically different from their peers, and it is only through their behaviour that others may realise that they are different. As Portway and Johnson (2003) state, "if other people cannot 'see' the disability, then they are unlikely to be cognisant of the problems arising from it" (p.82). Therefore, it is likely that if other children may expect them to behave in similar ways, they may become less tolerant of them over time, leading to rejection, isolation and the risk of bullying. On a similar note, staff ignorance that may come from negative attitudes and stereotypes towards ASD, poor support, and lack of training and expertise, can have a negative impact on pupils with ASD (Humphrey, 2008).

Despite the seemingly relentless drive towards inclusion in the English education system in recent years, ASD has been identified by a number of educationalists (both academic researchers and practitioners) as a problematic area, and one which may highlight flaws in the idealistic principles of inclusion, as opposed to the more pragmatic concerns of implementation on a day-to-day basis (e.g. Guldberg, 2010; Ravet, 2011). In an appraisal of the state of inclusion in England that sparked anger in the media and widespread controversy, Warnock (2005) reported a "disastrous legacy" (p. 20) of her original report, in that efforts to include all children had effectively resulted in lack of parental choice and the assumption that inclusion was the best option for all children. In particular, while arguing that inclusion may be appropriate for many children with ASD, she identifies them as a group for whom inclusion may not be universally applicable. This is a point that has gained support in recent years, with a more moderate approach emerging. This argues for a more balanced and integrative approach that considers each child according to individual needs (e.g. Morewood et al., 2011), and focuses on quality of provision (Humphrey, 2008).

The transactional nature of ASD is recognised as challenging the assumptions about inclusion, with the most severe forms of autism cited as a particular concern (Lewis & Norwich, 2005). Furthermore, it is argued that putting vulnerable children with

ASD into mainstream education who are not ready in developmental or emotional terms can be harmful (Simpson, de Boer, & Smith-Myles, 2003), and that putting ideology before the needs of the child is where inclusion has gone wrong (Cigman, 2007). Instead, while still arguing in favour of inclusion as something that should be offered to all, a more moderate stance promotes an integrative model that can allow for better quality specialist education in cases where mainstream is simply inappropriate or has failed the child (Ravet, 2011).

In terms of breaking down the barriers to education, the school environment is critical, necessitating sensitivity of staff, a willingness to modify the environment (Wing, 2007), and flexibility of provision (Morewood et al., 2011), although all too frequently few modifications are made (Frederickson et al., 2010), with a consequential impact on the education received and the social integration of the child. Teaching assistants are highly valued by teaching staff, who often feel intimidated by a child with ASD's emotional and behavioural needs if left unsupported in class (Emam & Farrell, 2009). Nevertheless, there is also the criticism that an over-reliance on LSAs, some of whom are untrained, means that the teacher-pupil relationship cannot develop, and the child can be left feeling isolated from both the teacher and the other children in the class (ibid.). This can have the effect of increasing the child's vulnerablity to bullies, who prey on these isolated children (Horowitz et al., 2004). Training and expertise have been found to help teachers gain the confidence to understand ASD and include diagnosed children in their class, (Guldberg, 2010; Simpson et al., 2003). Treating the child as an individual, seeing beyond the label of ASD, and focusing on a child's strengths are also seen as critical in making a child feel included and valued (Guldberg, 2010), but negative beliefs on the part of staff can also hold children back (Walker & Berthelsen, 2008). In particular, it can be difficult for staff to understand the apparent incongruity between a child with ASD's academic strengths and his/her relative difficulties with the social environment (Morewood et al., 2011). It is argued that it is only when all staff and pupils in a school embrace the inclusion of young people with ASD (in a saturation model), that true inclusion can be achieved (ibid.).

This has led to conceptualisation of a *distinct needs* profile for children with ASD, and therefore the necessity of a different approach to reflect the unique requirements of this group (Humphrey & Lewis, 2008b; Guldberg, 2010; Jones, 2006), while not

ignoring the needs of each individual child that are independent of a diagnostic label (Osborne & Reed, 2011; Walker & Berthelsen, 2008). Thus, while inclusion may be feasible and desirable for many on the autistic spectrum (Ferraioli & Harris, 2011), it should not be considered suitable for all children (Simpson et al., 2003).

On a more positive note, there is some evidence that social skills training can result in higher levels of social participation (Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010), which is known to protect against bullying (e.g. Card et al., 2008). Similarly, by educating other children in the class about ASD and making pupils aware of some of the difficulties associated with it, it has been shown that peers are likely to be more accepting of children with ASD compared with having no awareness of the condition (Brewin, Renwick, & Schormans, 2008). In terms of achievement, despite some concerns from teaching staff, there are no clear findings to suggest that including children with ASD has a negative effect on their peers (Ferraioli & Harris, 2011). However, in terms of improvements in social skills and academic achievement, there are a number of studies suggesting that children with ASD perform better in special schools compared with mainstream schools (Reed & Osborne, 2011). While it is problematic to directly compare children in special and mainstream schools, due to factors such as different student-teacher ratios, and the greater severity of needs that is more likely to be present in special schools, it is nevertheless of interest that such studies appear to concur in suggesting that special schools are associated with better outcomes for children with ASD.

2.3.3 Conclusion

The educational inclusion of children and young people with ASD remains a contentious area, perhaps highlighting the concerns of many educationalists over whether full inclusion can provide a high quality education for these children. Despite the ideals of all children being educated in the same classroom, the distinct profile of children and young people with ASD means that there has been some resistance from parents and teachers. Nevertheless, there is also acknowledgement that inclusion means more than simply the placement of the child, with individual needs, appropriately adapted pedagogic strategies, and communication with parents identified as key indicators of successful practice (Guldberg, 2010). However, given

the interactional difficulties characteristic of ASD, putting a child into the highly social environment of a mainstream school is fraught with potential challenges of which schools must remain vigilant. At its best and when everyone embraces the needs of children with ASD, social inclusion can promote positive relationships and a constructive educational experience, but at worst it can lead to a toxic combination of risk factors that make a child with ASD particularly vulnerable to bullying.

2.4 Bullying of children and young people with ASD

2.4.1 Introduction

Although there is no absolute consensus on the prevalence of bullying in the TD population, it is now widely recognised both in England and internationally that it is a significant problem. As bullying takes place in a social context, and ASD is typified by difficulties in social interaction, it comes as no surprise to see children with ASD described as "perfect victims" (Klin et al., 2000, p.6). This is something that is mentioned frequently in discussion sections of ASD research (e.g. Mazurek & Kanne, 2010; Wainscot, Naylor, Sutcliffe, Tantam, & Williams, 2008), but rarely explored further in terms of risk and protective factors. Nevertheless, a comprehensive literature search revealed that a small number of studies specifically investigating bullying of children and young people with ASD have been published over the past decade. Given this small number, it is appropriate to explore them in some detail to assess their depth and to ascertain whether there are gaps in research necessitating further investigation.

2.4.2 Key studies on bullying of children with ASD

The first large-scale study to investigate victimisation was by Little (2002) and took place in the US, using a sample of children with AS and non-verbal learning disorders (NLD). Mother-report was used, and participants were recruited through websites. From a sample of 411 mothers of children aged 4 to 17, it was found that 94% reported that their child had been bullied, of whom 75% had been hit or bullied emotionally over the past year. Emotional bullying rose with age, peaking at 13, but child characteristics (age, gender and diagnosis) were not found to correlate with bullying. Little (2002) also noted that peer shunning took place frequently, and that "a third of the children had not been invited to a single birthday party in the past year, and many were eating alone or were picked last for teams" (p.43). This finding has since been corroborated for children with ASD in a study by Koegel, Werner, Vismara and Kern Koegel (2005). While providing a thought-provoking piece of research, there are a number of limitations that mean that the findings of this study must be viewed with some caution. Little herself admits that the sample is not likely to be representative, given that mothers were the sole informants and were more

likely to be middle-class, as they needed internet access to learn about the survey. Furthermore, it was not possible to verify independently the diagnoses of the children. While children with NLD were included (the overall sample comprised 75.4% with AS), those with high-functioning autism (HFA) were not, despite AS and HFA often being studied together as one group (e.g. Macintosh & Dissanayake, 2006). In addition, this study did not explore the impact of bullying on the children concerned, although post-traumatic stress, anxiety and depression have been suggested from previous literature as outcomes.

In 2006, the report *B is for Bullied* (Reid & Batten, 2006) was published by the NAS, with data coming from a larger study into educational issues for children with ASD called *Make School Make Sense* (Batten, Corbett, Rosenblatt, Withers, & Yuille, 2006). Nearly 1400 responses were received from parents and carers, with 28 children interviewed about their experiences of bullying. The data include all children with a diagnosis of ASD (although the validity of the diagnosis could not be verified). Prevalence of bullying in this report is lower than in Little's (2002) study, with just over 40% of parents reporting that their child had been bullied at school. However, this figure rose to 59% for children with AS. Of those children who had been bullied, there were worrying accounts regarding impact, with 83% of parents reporting that their child's self-esteem had suffered, 63% felt that bullying had caused mental health problems, and others reported that self-harm had been as a result of bullying (see Figure 4 for further details). Boys were more likely to be bullied than girls, and it was found to be more relevant in mainstream schools.

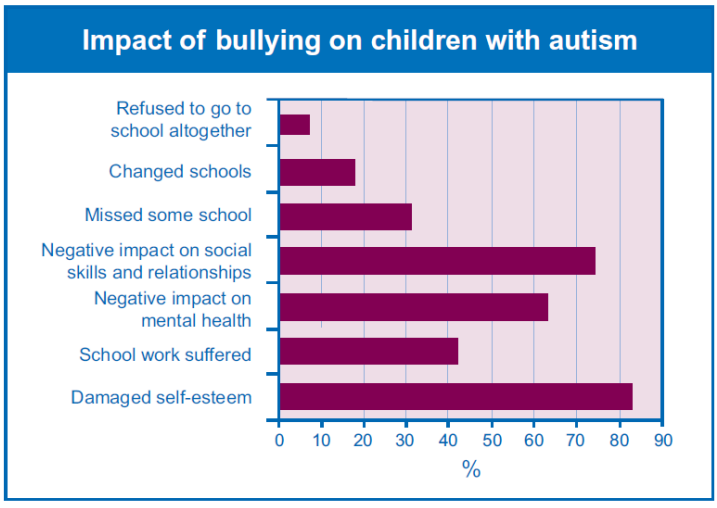

Figure 4: Impact of bullying on children with ASD (Reid & Batten, 2006)

The report discusses possible reasons why children with ASD are bullied, citing the key aspects of the triad of impairments, as well as sensory issues and unconventional behaviour. Reid and Batten (2006) also identify that children with ASD may struggle to know when they are being bullied, a finding which has subsequently been supported by Moore (2007). The impact of bullying was found to be particularly detrimental, with negative effects on mental health, self-esteem, academic achievement and social skills.

It is of interest that Reid and Batten (2006) report that the highest number of negative effects were found in the oldest group of children (16-19 year olds), which contradicts the findings in Little's (2002) study. A further finding of concern is that children with an ASD appeared to be at a much greater risk of exclusion than their TD peers. This finding is supported in other recent research from England that states that a fifth of children with ASD have been excluded, which is higher than for other SEND groups and a rate of up to 20 times that of TD children (Humphrey, 2008). While it is acknowledged that many children with ASD have challenging behaviour (e.g. Carrington & Graham, 2001; Osborne & Reed, 2011), there is evidence to suggest that violent outbursts can be as a result of long-term low-level bullying and teasing, with the ever-mounting sense of anger and frustration leading to an outburst that may seem out of proportion to others who have not witnessed the build-up (Hebron & Humphrey, in press).

While adding to Little (2002) in terms of exploring bullying and ASD in a British sample, this study also has a number of limitations. Although there was a large sample, respondents were recruited from NAS membership which may not be representative of all parents of children with ASD. As a report aimed at a wide readership, findings are not broken down or discussed in the sort of detail that makes underlying trends and patterns easy to identify. Nevertheless, this report offers a worrying insight into the nature and experience of bullying as reported by parents of children with ASD and the children themselves.

A further point to note, is that the larger report from which the data for *B is for Bullied* (Reid & Batten, 2006) were taken has recently been updated with a new report on education, called *Great Expectations* (Reid, 2011). While some improvements are noted when comparing parental satisfaction in 2006 and 2011, the

author recognises that many parents still struggle with access to appropriate provision for their child, with a quarter of children reportedly unhappy at school. Bullying is only briefly mentioned but remains an area of enduring concern, with 34% of children citing being bullied as being one of the negative things about school.

Just two years later, a paper commissioned by Autism Research (Wainscot et al., 2008) found that 90% of secondary school children with AS/HFA reported being bullied, and 87% of them bullied at least once a week (compared with 56% among those in the TD comparison group). They also found that, compared with their TD peers, these pupils were more likely to spend break and lunchtime indoors where there is greater adult supervision, they were less physically active during the day, spent less time interacting with peers and had fewer friends. This resulted in an increased risk of social isolation and lower levels of enjoyment of school. As reported by Reid and Batten (2006), this is likely to be because of the social and communication difficulties that are typically found in ASD. However, this report relies solely on pupil self-report from face-to-face interviews and is compiled from a relatively small sample (30 pupils with AS/HFA and 27 TD controls), and the effects on pupils are not considered. Additionally, it is of note that the question format of the interviews did not use the term *bully*, but instead asked, "What gives you the impression that they [other pupils] don't like you?" and "How often does this happen?" perhaps leading to a broader interpretation of bullying. Results were dichotomised into whether a child was bullied or not. Thus, the lack of a time delimiter may help to explain the high prevalence levels found in this study.

Carter (2009) reported that 65% of pupils with AS had been bullied in the past year, and this is a figure consistent with the NAS findings (Reid & Batten, 2006). This US study used parent-report with a sample of 34. It has similar limitations to some of the other studies mentioned, in that the sample was recruited online through advocacy websites and cannot be considered representative (e.g. 17% of fathers in the sample had PhDs). The study claims to replicate a previous one, but details of it were not published. Nevertheless, the findings do lend further weight to the argument that children and young people with AS are particularly vulnerable to bullying. Reasons for the bullying remain as a result of the difficulties associated with ASD, as previously mentioned. The effects reported by parents are worrying; with a high incidence of mental health problems and emotional distress, including suicide

ideation and attempts, fear of peers, and retaliation to violent incidents leading to exclusion.

In Europe, a Dutch study (van Roekel et al., 2010) was published using pupil, peer and teacher-report, focusing on a sample of 230 adolescents educated in special (ASD-specific) schools. They found that the rates of being bullied were similar to the range found in general bullying research (Due et al., 2005), with 7% in peer-report, 17% in self-report, and 30% in teacher-report. This demonstrates wide variation, and it is surprising to find teachers reporting the highest levels. Nevertheless, as this study is based solely on pupils in special education, who are therefore likely to be those with the greatest levels of impairment, it is possible that these may be children who are least able to recognise the signs of being bullied. Alternatively, even though the teacher-reported levels are similar to those that would be expected for TD children, the figure is still significantly lower than those found for children with AS, and who are more likely to be educated in mainstream settings. This lends support to the argument that bullying may be more common among the apparently more able students who are put into mainstream education. A strength of this study lies in the use of multiple informants and also its greater sample size. However, it would be useful to be able to compare the prevalence figures with children with ASD in mainstream settings.

While much of the existing research either has no comparison group or one made up solely of TD young people, Humphrey and Symes (2010a) carried out a quantitative study using secondary aged children with dyslexia as a second comparison group in addition to TD children). Despite a relatively small sample size (40 in each group, using self-report measures), much higher frequency of bullying was found in the ASD group compared with gender and age matched peers in the control groups. This offers an important indication that a child's vulnerability to bullying may vary according to SEND type, and that children with ASD may be yet more vulnerable. This is linked to the *general differences* approach to inclusion that the authors support, in which "practice is also informed by needs that are specific to a group that shares common characteristics" (Humphrey & Symes, 2010a, p. 78).

Higher levels of bullying were associated with lower levels of social support from peers (but not from parents) compared with the other two groups of students, and the

authors suggest that this may be a bidirectional relationship, with bullying impacting on social relationships, making the child more isolated and vulnerable to bullying. Thus, receiving help from another pupil in the class was found to be an important way of reducing bullying and may act as a protective factor. Reasons for reduced social support could reflect a lack of understanding of autism among peers, or may be as a result of being bullied, as noted in an earlier study (Humphrey & Lewis, 2008a). Increased bullying is also thought to be reflective of the more restricted social networks that children and young people with ASD have been found to have (Rotheram-Fuller et al., 2010). This is consistent with other research that has found that these children form fewer friendships that tend to be of a lower quality (Bauminger, Solomon, & Rogers, 2010). That parent support was not associated with lower levels of bullying was an unexpected finding, given the proactive stance of many parents of children with an ASD (Humphrey & Lewis, 2008a). However, this could also reflect the growing desire for independence in adolescence, meaning that support that might have been willingly accepted at a younger age, is more likely to be met with resistance.

In a parallel study using the same sample, Symes and Humphrey (2010) found that children with ASD "experienced higher levels of rejection and lower levels of acceptance than either reference group" (p.478), underlining the social challenges for these pupils, that are not only as a result of their own difficulties in forming and maintaining relationships, but also in the responses of peers. As previously mentioned, this is likely to be as a result of pupils with ASD appearing different from peers, which is a key risk factor for being bullied in general bullying research (e.g. Horowitz et al., 2004). Although not a study that looked specifically at bullying, Humphrey and Lewis (2008a) found that children with ASD had a profound awareness of their difference from other pupils, and that this, in combination with social naivety, led to elevated levels of frustration and distress.

Pupils' responses to bullying and social support are explored further by Humphrey and Symes (2010b) in a qualitative study of 36 of the young people who took part in the aforementioned quantitative study. Bullying and social support are viewed as important indicators of inclusion by the authors, with participants reporting a wide range of responses to support that was mediated not only by the difficulties inherent in ASD, but also based on past experience and the quality of relationships with adults

and peers in school. Difficulties social relationships appear a central concern of these young people and are also likely to contribute to greater isolation, thereby predisposing these children to circumstances that are associated with a much higher risk of bullying in the general research field. A theoretical framework for the processes that may determine a secondary age child's response to bullying is suggested in the study and can be seen in Figure 5 below.

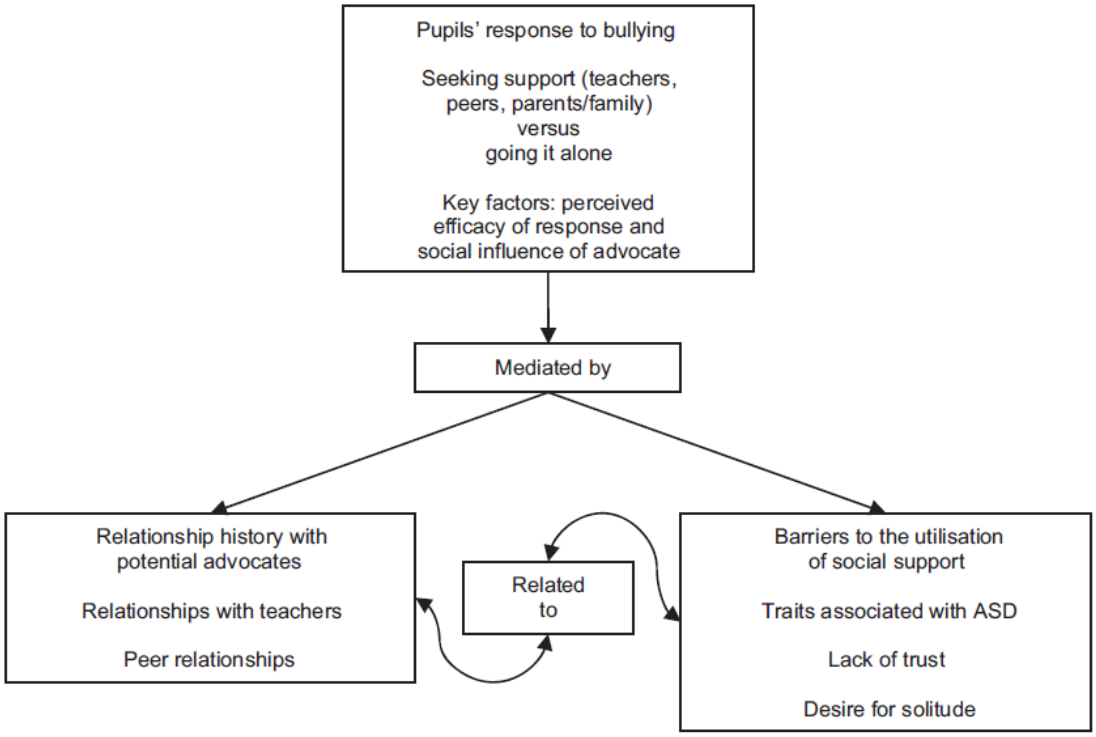

Figure 5: Responses to bullying and utilisation of social support among pupils with ASD in mainstream secondary schools (Humphrey & Symes, 2010b, p. 86)

Most recently two quantitative studies have been published that have expanded the field further, confirming that bullying is very much a problem for children and young people with AS. The first is an Australian study into social vulnerability and its relationship with bullying in a sample of 133 children with AS (92 used for the predictor variables, 133 for social vulnerability), and using parent-report (Sofronoff et al., 2011). Prevalence is not explicitly explored, but the authors found that social vulnerability was the strongest predictor of bullying, with anger, anxiety, behaviour difficulties and social skills also significant predictors within the regression model used. Nevertheless, the authors note that it is surprising that these latter predictors did not show a relationship with bullying when analysed separately. The suggestion is that these aspects of behaviour are less obvious to peers, although this seems

tentative, as other research indicates that behavioural and emotional vulnerabilities are common features of ASD that are commonly observed (e.g. Totsika, Hastings, Emerson, Lancaster, & Berridge, 2011), and that other pupils may deliberately provoke children with ASD because they are aware of their triggers. On a more positive note, the authors found that children with AS who appeared to be less socially vulnerable were also less likely to be bullied, suggesting that bullying is not an inevitability for these children. Interventions to reduce social vulnerability are proposed as a next step in bullying reduction.

The authors note from the qualitative analysis of responses that verbal teasing was identified as the greatest problem for children (with 46.3% of parents mentioning it, followed by 31.7% for physical bullying), but state that this does not tend to be considered bullying, although they later mention it as "subtle bullying […] which may have unique effects on a child with AS" (p.368). However, other studies, both in the general bullying field and ASD research, have identified teasing as a damaging form of bullying that should not be ignored. For example, while teasing may have a prosocial role (Samson, Huber, & Ruch, 2011), few people enjoy being laughed at, and it can be used as a form of abuse. Asperger (1944) himself noted that the children he studied appeared particularly sensitive to being teased, and subsequent research has supported this (e.g. Heerey, Capps, Keltner, & Kring, 2005; Samson et al., 2011). This could be because the highly nuanced nature of teasing makes it particularly difficult for these children to decipher, resulting in a confusing and stressful experience. It is suggested that children with AS are also easy targets for teasing due to their social awkwardness (e.g. Carter, 2009; van Roekel et al., 2010), leading to a potential vicious circle of teasing behaviour, that can have detrimental effects.

While this is a stimulating study that introduces important ideas to the debate about bullying and children with AS, it is of note that it only includes one category of more highly functioning children within ASD. The comparison group was disproportionately small, with only 23 children and a different gender ratio, making the findings more difficult to generalise. Furthermore, as is the case for the majority of the research into ASD and bullying to date, risk factors are considered from a within-child perspective only.

The most recent piece of research to emerge in this field counters this latter point to a certain extent by examining some contextual risk factors in a Canadian sample. Cappadocia, Weiss and Pepler (2012) investigated bullying experiences among 192 children and young people aged 5-21, using parent-report. As with the previous studies, prevalence is worryingly high, with parents reporting that 77% of children had been bullied at least once in the past month, with 11% reporting just one incident, 23% 2-3 times, 13% once a week, and 30% 2-3 times per week. The model was strong, accounting for 77% of variance. Being bullied was associated with age, internalising/externalising problems, number of friends, communication problems, and parent mental health difficulties. The authors found that having communication difficulties predicted a five-fold increase in the risk of being bullied, while having internalising problems was associated with an eleven-fold increase compared with children who were not bullied. The most common forms of bullying were verbal and social, and this is supported in the general bullying literature. The authors acknowledge the often bidirectional nature of internalising/externalising difficulties and communication problems.

As is the case in several of the other studies mentioned, the sample in this research is unlikely to be fully representative, with internet-based recruitment, the use of single informant response format, and no external verification of the children's diagnoses. Despite being aware of the educational placement of the children, no analysis was conducted to assess bullying risk in different settings. Nevertheless, this study offers corroboration for high and unacceptable levels of bullying and provides further information about those factors which may predict a heightened risk of it taking place. Social difficulties are seen as natural precursors of the isolation and social marginalisation that often lead to a child becoming a victim of bullying. Nevertheless, the majority of the factors explored here still retain a bias towards the difficulties existing within the child, leaving an examination of the many environmental and contextual factors essentially unexplored.

2.4.3 Conclusion

Research into bullying of children and young people with ASD remains an under-explored area, despite acknowledgement that this group should be at heightened risk in light of both general bullying research and SEND research. The studies described in this section represent a small international field that has begun to offer an insight into whether and why children and young people with ASD are more at risk from bullying than other children. The evidence so far suggests overwhelmingly that they are bullied significantly more than their peers. It also links the high prevalence of bullying to the social difficulties that these children routinely encounter. While the majority of pre-existing research focuses on prevalence and is quantitative in nature, likely risk factors to emerge are peer relationships, age, internalising/externalising problems, parental mental health, and behaviour. Other qualitative findings go into more detail and explore the nature of friendship and social relationships, assessing not only the difficulties that are manifested by these children, but also their own perceptions of the experiences, including a sense of difference that isolates them from their peers.

The impact of bullying on the individual cannot be underestimated, and despite the small number of studies focusing specifically on bullying of children with ASD, the effects on self-esteem, behaviour, mental health and enjoyment of school are clear. The lack of systematic research has already led to calls for more studies (e.g. Humphrey & Symes, 2010a; Wainscot et al., 2008), and there is a need for further exploration of risk and protective factors across age groups that are not only mapped onto existing bullying research but also reflect aspects of bullying that may be unique to this particular group. There is a growing research base of studies that explore the difficulties encountered by children with ASD in the educational system, and a review of these contributes to the exploration of the risk and protective factors for bullying. Therefore, the aim in the next section is to assess potential risk and protective factors in the light of both general bullying research and research specifically focusing on children and young people with ASD.

2.5 Risk and protective factors for bullying of children with ASD

2.5.1 Introduction

In the context of the few studies to explore bullying specifically, it is pertinent to explore the extent to which the risk and protective factors for bullying also apply to children with ASD. Given the wealth of studies that have investigated bullying in the general population, and the growing evidence base that supports certain risk and protective factors, it is surprising that so few studies have explored these factors in a group of children acknowledged to be vulnerable to bullying. Thus, the aim in this section is to examine the main risk and protective factors for bullying in the light of research into the difficulties children and young people with ASD encounter in their day-to-day lives. As is the case in the wider bullying literature, there is a tendency for many of the risk factors for bullying to be situated within the child; for example, a shy child who is lacking in self-confidence may attract the attention of a potential bully, as he/she is seen as vulnerable and inferior in terms of power and status. Nevertheless, more recent developments in bullying research indicate that there are also factors external to the child, whether from school, family or community environments that are associated with the risk of bullying. Therefore, this section explores potential risk and protective factors at different levels of influence, and assesses the extent to which this may impact on children with ASD.

2.5.2 Individual factors

Social relationships

It is of note that one of the key findings in the general bullying literature relates to relationships, in that bullying must take place in a social context with one or more peers present (Griffin & Gross, 2004). As the difficulties inherent in a diagnosis of ASD are largely rooted in social interaction, it is logical that children with ASD should be particularly vulnerable to bullying. There are many studies that have investigated relationships with others as a way to understand the difficulties of ASD, and there is no shortage of empirical findings to indicate that complex relationships with others, in particular with peers, are especially problematic for these young people, although there is likely to be a broad spectrum of impairments (van Roekel et al., 2010). While many of these studies mention bullying as a natural consequence of

these difficulties, there is frequently little or no further exploration. However, as Humphrey and Lewis (2008a) point out, relationships with peers can act as both barriers and facilitators in terms of successful educational inclusion, and so it is appropriate to examine this broader literature, as it may hold important clues to risk and protective factors for bullying. This is discussed in the following sections in terms of difference, rejection, friendship and loneliness.

***Difference*:** As is the case in general bullying literature, when a child appears different in any way from the peer group, this can lead to problematic relationships due to the lack of 'fitting in' with the social norms that tend to exist in social groupings (e.g. Horowitz et al., 2004). This phenomenon is acknowledged in the ASD literature and has been reported in a number of studies. For example, Portway and Johnson (2003) note that this sense of difference was frequently seen in children with AS; Humphrey and Lewis (2008a) used the self-report of secondary school pupils in their study, finding the contradictory stance that the young people were often acutely aware of their differences but at the same time struggled to assimilate with their peers in a way that would make them accepted; and Bolman (2008) reports how a young man with ASD became increasingly depressed the more aware he became of his difference from peers. As a consequence, many young people make considerable efforts to conceal their differences, which is likely to cause high levels of stress, anxiety and related behaviour problems (Carrington & Graham, 2001; Humphrey & Lewis, 2008a).

Peers may see the child with ASD as socially 'odd', which may lead to further social exclusion and as a consequence make it less likely that they would seek out further interaction with peers (Wainscot et al., 2008). Particular difficulties that make a child with ASD conspicuous can be seen in communication, when problems understanding non-literal language (such as metaphor, sarcasm and jokes) may make it problematic for them to understand interactions, and therefore also more difficult to participate. In addition, misinterpreting social cues may mean that the child with ASD acts in a socially inappropriate manner, resulting in peers distancing themselves or exposing the child to ridicule (Samson et al., 2011). Although in general, bullying tends to decrease with age, social relationships become ever more complex at puberty, with more sophisticated interactions, and often a greater need for conformity and group identity (Conley & Rudolph, 2009). Given the differences often exhibited and felt by

young people with ASD, a potential concern must revolve around whether bullying actually increases at this time (see section 2.5.2 for a more detailed discussion of age as a risk factor).

Thus, the notion of difference is important for many children and young people with ASD, and it has been found that this feeling of being at odds with peers tends to increase in line with higher levels of cognitive functioning. However, acceptance or rejection of a child because of difference is also an issue in relation to peers. Although the child with ASD may make considerable efforts to conform, success or failure is often dependent on the attitude of other children. When it works well, peers can provide a level of acceptance and social support that acts as a protective factor against bullying that is more powerful than that of parents or teachers (e.g. Humphrey & Symes, 2010a, 2010b), but when this relationship is not present or breaks down, then rejection is likely to be a common consequence.

Rejection: Social rejection (by teachers as well as peers) has serious consequences, in that the resultant isolation is another mechanism that situates the child at the edge of friendship groups (Chamberlain, Kasari, & Rotherham-Fuller, 2007). A number of studies have found that children with ASD, while not necessarily being completely excluded from the social networks in their schools, are more often on the periphery than their TD peers (e.g. Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011). This raises the question of whether acceptance is the opposite of rejection: in other words, if a child is accepted, does he/she form a more central part of the peer group, or is it simply that the child is ignored, neither particularly liked nor disliked? Indeed, Kasari et al. (2011) suggest that some children may be more neglected than actually rejected, although this could have a similarly negative impact on the child. Whatever the case, rejection and the ensuing isolation are likely to exacerbate a child's sense of isolation with age, as deficits in social understanding become more obvious as other children's social development matures (Frankel, Gorospe, Chang, & Sugar, 2011).

Friendship: While it was once believed that children with ASD neither wanted nor were capable of friendship and had a "desire for aloneness" (Kanner, 1943, p. 249), recent research has challenged this, finding that friendships are often present for children with ASD and tend to increase according to the level of verbal and cognitive functioning (Bauminger, Solomon, Aviezer, Heung, Gazit, et al., 2008). Thus,

although a child with classic autism may not have the cognitive level to understand or pursue friendship, there is a continuum of attachment security that supports not only a desire for friendship in many children with ASD, but also the ability to form such connections (Bauminger et al., 2010). Indeed, in support of inclusion, positive social interaction with peers has been shown to improve the social functioning of children with ASD in a number of studies (e.g. Bauminger, Solomon, Aviezer, Heung, Brown, et al., 2008). Furthermore it is of note that just being in the presence of peers is not thought to have a positive effect (Locke, Ishijima, Kasari, & London, 2010); rather there is a need for intervention to help children to engage with peers (Kasari et al., 2011), and peer-directed interventions have also been found to have a positive effect on the social skills of children with ASD (Kamps et al., 2002).

Nevertheless, despite the acknowledgement that positive relationshps can protect against bullying, the actual nature of friendships of children with ASD has been shown to be qualitatively different from their peers. For example, Bauminger, Solomon, Avezier, Heung, Brown, et al. (2008) found that friendships tend to be fewer and of poorer quality, involving less intimacy and closeness. Although it is vital to remember that all children with ASD have unique profiles, and some do indeed form successful and enduring friendships with peers, friendship remains a challenging area for many (Orsmond, Krauss, & Seltzer, 2004). Thus the qualitative difference in these relationships may mean that they represent less of a protective factor when exposed to bullying behaviour than would be expected in the broader population. It has also been suggested that bullying may make young people with ASD less motivated to seek out friendship, making the relationship between bullying and friendship potentially bidirectional (Whitehouse, Durkin, Jaquet, & Ziatas, 2009).

Loneliness: Poor quality friendships or a lack of them may lead to isolation and loneliness, and there have been a number of studies to explore this. Bauminger, Shulman and Agam (2003) found that adolescents with ASD experienced high levels of loneliness compared to TD peers, and this finding was supported in a recent study (Lasgaard, Nielsen, Eriksen, & Goossens, 2010) in which 21% of adolescent boys with ASD reported that they were often or always lonely. Nevertheless, using a younger sample, Chamberlain et al. (2007) did not find any difference with TD children, suggesting the possibility that loneliness may increase with age. Children

with ASD can enjoy being alone, yet there are few studies to explore this and assess whether this is linked to difficulties in social relationships, and it has been questioned whether children and young people with ASD are able to accurately understand feelings of loneliness (ibid.).

Thus, social relationships are an area fraught with difficulties for children and young people with ASD. In the light of the triad of impairments, it is clear that social and communication difficulties, and challenges adapting to the ever-changing school environment, have the potential to set these children apart from their peers. These children's different ways of perceiving and dealing with the world around them may be seen as deviant compared to the peer group, resulting in rejection and isolation, all of which are known risk factors for bullying.

Internalising and externalising problems

While it is beyond the scope of this thesis to explore internalising problems as a risk factor for bullying, it is nevertheless important to acknowledge that they are difficulties that many children and young people with ASD encounter and may well be implicated in the risk of bullying. A wide range of comorbid psychiatric disorders have been reported in children with ASD which significantly exceed those in the TD population. The *Office of National Statistics* survey into the mental health of children and young people in 2005 (Green, McGinnity, Meltzer, Ford, & Goodman) found that 30% of young people with ASD presented with a clinically significant mental health problem, while 78% of parents felt that their children had some sort of psychiatric difficulty. Using a population-derived sample of 112 (10-14 year olds), Simonoff et al. (2008) investigated comorbidity in ASD, reporting that 77% presented with at least one comorbid disorder and 41% with two or more. The most common disorders were anxiety disorders (41.9%), followed by ADHD (28.1%) and oppositional defiant disorder (28.1%). Although prevalence varies according to the study and methodology used (e.g. many studies take their samples from psychiatric clinics rather than community samples), repeated findings confirm that internalising and externalising difficulties are significantly more prevalent than in TD children (e.g. Ghazuiddin, 2005). Worryingly, it is also suggested that the symptoms of ASD may be confused with emotional problems, meaning that under-diagnosis is likely in this population (Rose, Howley, Fergusson, & Jament, 2009).

Internalising problems are more hidden and therefore likely to be under-reported. Anxiety is noted in the *DSM-IV-TR* (APA, 2000) as a common aspect of ASD, with some studies indicating that it is the most common comorbidity (e.g. Simonoff et al., 2008), with prevalence estimated to be between 11% and 84% (White, Oswald, Ollendick, & Scahill, 2009). Given its very high incidence in ASD, it has also been questioned whether anxiety is a comorbidity or in fact a core component of the condition (Chalfant, Rapee, & Carroll, 2006). Simonoff et al. (2008) noted that social anxiety was the most common comorbid disorder in their study, suggesting that the social difficulties inherent in ASD are a significant factor, especially for more highly-functioning individuals. Social anxiety is likely to result from the difficulties children with ASD have in successfully interacting with their peers, and it is of concern that the anxious child is known to be vulnerable to bullying (Olweus, 1993). The bidirectional relationship between internalising problems and bullying is well-reported in the literature, with damage to self-esteem also thought to follow a similar pattern (e.g. Cappadocia et al., 2012; Humphrey & Lewis, 2008a).

Depression is also noted in children with ASD (Hebron & Humphrey, in press), and it is possible that enduring high levels of anxiety may lead to depressive illness. Another possibility is that constant efforts to conform to the expectations of peers, make friendships and engage with others may over time predispose children with ASD to depression. Alternatively, this may be another example of a bidirectional relationship that worsens in an ever more damaging vicious cycle of negative experiences. There is also a tendency for other children to avoid others seen as weak or vulnerable, and these are known risk factors for being bullied (Pozzoli & Gini, 2010).

Externalising problems are known to be more common in children with ASD than their TD peers, possibly as a result of frustrations due to poor social understanding (Macintosh & Dissanayake, 2006). Carrington and Graham noted that aggression can "surface as a result of stress and the overwhelming panic that individuals may feel when events in their social world become unintelligible and unpredictable" (Carrington & Graham, 2001, p. 1074), although the authors acknowledge that such behaviour can also be aimed at achieving a particular social response. Nevertheless, the link between this sort of reactive aggression and vulnerability to bullying as a

provocative-victim, or bully-victim through peer rejection and isolation, is a known outcome (Pellegrini & Bartini, 2000), and one that must be acknowledged.

Managing unstructured parts of the day and coping with changes in routine, which TD children are expected to cope with naturally, may cause extremely high levels of anxiety and frustration in a child with ASD. However, many higher-functioning children with ASD try to mask their differences in an attempt to assimilate with their peers. Subtle teasing and bullying may be used by peers to provoke a reaction (e.g. Humphrey & Lewis, 2008a). These tensions are often contained until breaking point, when a child will have a behavioural outburst that may seem disproportionate to the apparent trigger (ibid.). This may also be seen at home, when parents often report that their child *explodes* once in the safety of the home, having managed to cope with the frustrations of the day, and with apparent good behaviour at school. Other children may reach their limits at school, resulting in a range of behaviours, from crying and hiding, to more extreme ones such as lashing out (Wing, 2007). Although there is a clear chain of events leading to this for the child with ASD, he/she may not recognise the signs, and teachers may not appreciate the reasons for the outburst, interpreting it instead as naughty or malicious behaviour (MacNeil, Lopes, & Minnes, 2009).

In addition, the behavioural symptoms associated with ADHD may cause difficulties, due to the impulsive behavioural patterns that can disrupt or provoke others, further alienating the child not only from peers but also teachers who may become exasperated with the demands of trying to manage challenging behaviour in the classroom. Thus, a child with ASD may be seen as the aggressor in some situations, leading to the label of bully, or bully-victim. Given that the traditional bully-victim is seen as someone who is low in social skills and problem-solving and who is rejected by peers, the likelihood of a child with ASD fitting these criteria is high. This suggests that not only are they at serious risk of behavioural problems that may be misunderstood, but also that the way in which their reactions are perceived by peers may make them vulnerable to bullying.

Age

Research in the general bullying field tends to find that age is a significant risk factor for bullying, with a trend for it to decrease with age, although the curve appears to be

less steep in the secondary phase (Olweus, 1993). One potential reason for this is that bullies tend to be older and therefore the older the child, so the number of available bullies becomes smaller (Olweus, 1993). Another possible reason is that as young people enter adolescence their understanding of difference and tolerance may mature, and they may become more accepting of others, although findings in this area remain equivocal and dependent on context (Wright, 2011). It is also known that social groupings become more intimate and complex around adolescence (Locke et al., 2010). With the principal difficulties of young people with ASD lying in social understanding and conforming to peer expectations, then it is reasonable to suggest that in fact this may be an increasingly difficult time. Add to this that very young children tend to be more tolerant (or less aware) of difference, and it is possible that the opposite trend in age-related differences in bullying may be the case for those with ASD.

In the light of such difficulties, it is surprising that few studies have considered the relationship between age and bullying in children with ASD, with only two mentioning it specifically and one more indirectly. Little (2002) found that bullying peaked at ages 6, 8 and 10 in terms of frequency, with emotional bullying at its highest at age 13, although only with a small decline thereafter, and she comments on the fact that there were still on average around three bullying incidents per year among 17 year olds. Reid and Batten (2006) in the UK found that bullying occurred in all age-groups but that "more parents in our survey reported negative impacts among the oldest children in our survey (aged 16-19)" (p.3). However, while Kasari, et al. (2011) were not specifically exploring bullying, they found no group differences according to school grade year and the quality of peer relationships, although the age-range was limited to the equivalent of primary age children in England, and thus cannot be compared with the two other studies that covered compulsory school ages.

Thus, the social difficulties of children and young people with ASD mean that age-related trends for bullying may not apply, and the only two studies that consider a broad range of age in relation to bullying appear to confirm this suspicion. However, both of these studies used potentially unrepresentative samples, meaning that there remains a need to assess the relationship between age and bullying in school-age children using a more representative sample.

Gender

Another possible risk factor for bullying that has barely been explored in relation to ASD is the effect of gender. That boys tend to be bullied more than girls remains a relatively robust finding in the general bullying literature, although this has been mitigated by greater awareness of the more subtle forms of bullying (e.g. emotional and relational). One of the major obstacles to examining gender and bullying in children with ASD lies in the apparently greater prevalence of ASD in boys compared to girls, making large female sample sizes difficult to achieve. For example, Daniel and Billingsley (2010) focused solely on the experiences of boys in their qualitative study, while other studies have had such tiny sample sizes, that no robust gender comparison would be possible (e.g. Frankel et al., 2011; Locke et al., 2010). Nevertheless, Little (2002) found that boys with AS were more likely to be hit than girls, and Reid and Batten (Reid & Batten, 2006) concur but note that girls are only slightly less likely to be bullied than boys overall. Thus, there remains a gap in the literature regarding the prevalence of bullying of girls with ASD. As girls' bullying tends to be more subtle, this is an important area to explore, as it may be particularly prevalent among this sector of the ASD population.

2.5.3 School-related factors

Attendance

Low attendance has been identified as both a precursor and consequence of bullying (see section 1.5.3). Intermittent attendance is likely to make it more difficult for a child to be fully integrated into a peer group, leading to further isolation and the risk of bullying. Yet, there is very little mention of attendance levels in the ASD literature, with more time spent on issues of exclusion. Only one study reports specifically on attendance: Wainscot et al. (2008) noted no significant difference in attendance levels between pupils with ASD and TD controls, and the authors acknowledge that this is at odds with general bullying research. While this finding may be of significance, the sample size in this study was relatively small. However, Reid and Batten (2006) note that over 30% of parents reported that their child had missed some school as a result of bullying, with just under 10% of pupils having refused to go to school at all following bullying. Clearly, these contradictory findings (that are both from the UK) warrant further investigation.

Academic Achievement

The link between academic under-achievement and bullying is disputed in the bullying literature, and once again there is little data available concerning the relationship in children with ASD. Nevertheless, over 40% of parents in the NAS report said that their child's school work had suffered as a result of it (Reid & Batten, 2006). While poor progress in school may be viewed as a potential consequence of bullying, it is also pertinent to ask whether high achievement may be linked to an increased risk of bullying, as this is another way in which a child may present as different to peers (Card et al., 2008). While many children with ASD have learning difficulties, those with HFA and AS may be extremely high achievers, and if this is combined with social awkwardness, then it is likely that academic giftedness may serve to make the child even more vulnerable to bullying. As noted by Humphrey and Lewis (2008a), academic success does not guarantee that a child is well settled and coping socially in school, although this is often the assumption made.

Type of school and support

There remains a big difference between mainstream and special schools in terms of the severity of pupil needs (with most or all children in a special school having a statement of educational needs), pupil to teacher ratios, and also the amount of additional SEND training and expertise that is likely to be seen in special school staff compared to those in mainstream schools (Reid, 2011). With up to 70% of children and young people with an ASD now educated in a mainstream environment (DfE, 2010), it is important to explore whether the risk of bullying is greater in this setting, where there is a broader profile of children with ASD, larger classes, more pupils and potentially less support throughout the day. Given the additional adult support generally available to children in special education, there should be fewer opportunities for bullying to take place. A suggestion that there may be variations in bullying dependent on setting comes from Reid and Batten (2006) in which the authors state that "children in mainstream schools are most likely to have experienced bullying" (p.2), although there is no comparative information regarding other settings. While parents reported that mainstream schools were more likely to make parents aware of their anti-bullying policy (a statutory requirement) and dealt with bullying incidents slightly better than special schools, there is no empirical evidence that can point to whether one setting presents more or less risk of bullying

compared to another. Of note is van Roekel et al.'s (2010) study which found a similar prevalence of bullying in ASD special schools as in general education, despite less perceived difference between pupils and in addition to the more generous pupil to staff ratios.

Another factor that may influence vulnerability to bullying is the amount of support a child with ASD receives in school. While a statement is generally needed in order for a child to attend a special school, this is not the case in mainstream education where a child with ASD may be at SA, SAP, have a statement, or receive no official additional support. These different levels are not rigidly defined, making official support difficult to compare in relation to a child's actual needs, as this may be dependent on a number of factors, such as funding strategies at local authority level, perceived competence of staff to manage a child's needs with/without additional support, and the availability of support services. Nevertheless, in general, the different SEND stages tend to reflect the increasing amount of support a child receives in school. Therefore, a child with a full statement in mainstream education is likely to receive considerably more support than other children (often through the use of a teaching assistant), and so the presence of an adult should reduce the likelihood of being bullied due to fewer opportunities for the bullies to act. This may be countered by the argument that the more support a child receives, the more likely he/she is to be perceived as different by peers and actually have increased vulnerability to bullying (Humphrey & Lewis, 2008a; Nabuzoka, 2003). As children with ASD are already likely to be more vulnerable, there is a need to investigate this putative link further.

Transport to and from school

While there is very little information about whether bullying is more prevalent when travelling to and from school unsupervised, exploratory studies by Raskauskas (2008) in the US would indicate that this is likely to be the case. As many children with ASD use public/school transport to get to and from school, especially in the case of those attending special schools who may live some distance from the school, there is potential for increased bullying in this environment. Should more bullying take place at this time, this will raise the likelihood of a child arriving at school stressed and anxious, potentially leading to further problems during the school day. To date there has been no quantitative research in this area even in the general

bullying field. Indeed, a review of the ASD literature only uncovered one reference to problems on the school bus, in which two parents reported that their daughters had been physically abused (Carter, 2009), but this was not investigated further.

Extra-curricular involvement

Linked to the potential for bullying when adult supervision is low, participation in extra-curricular activities is a potential area of concern for children with ASD. Little is known about their levels of participation, and the only study to mention this is in the context of social and recreational activities (Solish, Perry, & Minnes, 2010) but not specifically school-based after-school activities. However, it is reported that Canadian children with ASD participated in significantly fewer activities than children with intellectual disability and TD peers. As there is evidence to suggest that increased participation in activities with peers helps to promote school connectedness (e.g. McNeely et al., 2002), and also develop social skills in children with ASD (Rotheram-Fuller et al., 2010), this is a worrying finding that warrants investigation in an English context, as either a risk or protective factor depending on whether its less structured nature promotes bullying or the increased social context reduces it.

2.5.4 Family factors and vulnerable groups

While there is little support for a link between SES and being bullied, Green et al.'s (2005) report into the mental health of 14-16 year olds is of potential interest when the findings for young people with ASD are compared with national averages. It was found that 46% had parents who had qualifications beyond GCSE (average is 35%), yet 30% lived in a household in which neither parent was in employment (average is 14%) and 56% lived in a household that in receipt of a benefit for disability (average is 8%). This apparent discrepancy between educational qualifications and economic activity is unusual, but may reflect the increased need to care for children with ASD.

Parental satisfaction with school is an area that has not been linked to bullying, although a trusting relationship that involves full cooperation and mutual respect is likely to foster better communication between home and school: something that has been shown to be valued by parents of children with ASD (Batten et al., 2006; Reid, 2011). Higher levels of parental confidence and engagement have been associated with better progress for the child, and this was demonstrated in the case of parents

and teachers of children with SEND in the recent evaluation of *AfA* (Humphrey et al., 2011). Parents of children with ASD are known to struggle with the education system in England, and in particular to receive the provision they wish for their child. Indeed, this group of parents is the most likely to challenge provision and pursue educational tribunals according to the NAS (Reid & Batten, 2006). In the follow-up report (Reid, 2011), it was noted that little had changed, with parents still struggling with a system that many of them found difficult to navigate. With this clear tension between the education system and many parents of children with ASD, it is timely to examine the levels of confidence and engagement in relation to bullying, with the assumption that parents of a bullied child are less likely to feel positive about school.

A final factor for potential investigation is ethnicity, and this remains an area which ASD research has not explored. Despite inconclusive findings in the bullying literature (Frederickson & Cline, 2009), as another potentially vulnerable group there is merit in investigating this area, given that ASD appears to be spread among all ethnic groups in fairly even measure.

2.5.5 Conclusion

The lack of research on bullying of children and young people with ASD is surprising, given that they are repeatedly identified as a vulnerable group, and also that the key indicators of risk for bullying are frequently linked to the difficulties and challenges that these children encounter in their everyday lives. Yet the wealth of general bullying research, and the many studies into the difficulties of children and young people with ASD, have only rarely overlapped so far. An examination of a number of the major areas of risk for bullying suggests that it is likely that these risk and protective factors may also apply to children with ASD, and that this risk may be heightened in this group of young people, not only because of the difficulties inherent in ASD, but also because of an educational system that has not fully adapted to their needs.

In the light of considering risks factors for bullying with the difficulties of children with ASD, it is probable that a considerable amount of this vulnerability comes from the difficulties inherent in ASD. Linked to this, problematic behaviour and emotional

difficulties may serve to exacerbate relationships with peers, due to misunderstanding and perceived vulnerability.

Nevertheless, what is largely absent from the current research base is an appreciation of other factors that are external to the child but which may represent potent risk or protective factors for bullying. These may come from the school environment, and are pertinent given the enduring inclusion debate and its relevance for children and young people with ASD. As Baron-Cohen (2000) observed, many people with AS in adulthood reflect back on their difficult childhood experiences with a sense of sadness. While there are no studies that are able to gauge the long-term prognosis of the experience of being bullied on the adult lives of people with ASD, the evidence from the general bullying field suggests that is it not positive and deserves greater scrutiny.

2.6 Summary statements

- ASD is a developmental disorder that has only begun to receive significant attention in recent decades, despite evidence to suggest that it has existed throughout history and also cross-culturally.
- Recent rises in prevalence appear to be linked to greater awareness and improved assessment procedures, although there is an on-going debate surrounding thresholds for diagnosis.
- ASD is typified by a triad of impairments that can have a serious impact on a child's ability to integrate into the educational system.
- The educational inclusion of children and young people with ASD has sparked considerable controversy, with a *distinct needs* profile proposed for these children (Guldberg, 2010).
- Around 70% of children with ASD are now educated in mainstream schools (DfE, 2010), leading to concerns about the quality of provision and the level of social integration that is possible.
- Special education remains available for children with the greatest levels of impairment, and there is a growing consensus that mainstream education may not be suitable for all children with ASD.
- The few studies to investigate the bullying of children with ASD suggest overwhelmingly that they are at a much higher risk of being bullied than their peers, including those with SEND.
- There are a number of risk and protective factors that may be implicated in vulnerability to bullying. However, there are few studies that make this link explicitly or investigate multiple risk or protective factors for bullying.
- Due to the social impairments found in ASD, studies often focus on predictors at the level of the child, but it is also apparent that contextual factors, such as school and family, may also have an important part to play.
- Many risk and protective factors found in general bullying research may apply to children with ASD, but the extent to which this is actually the case remains unclear.

2.7 Rationale and research questions

2.7.1 Rationale

A review of the literature on bullying of children and young people with ASD reveals that this is an under-researched area, with gaps in knowledge that warrant exploration. The rationale for the current study is presented below in the light of this review.

There are many methodological constraints in the current field of research into the bullying of children with ASD (e.g. Borntrager et al., 2009; Griffin & Gross, 2004); therefore the present study aims to address some of these in order to produce findings that have a greater level of validity. It is the intention to advance knowledge in a number of areas:

- Use of multiple informants (teachers and parents with the addition of the child's voice in the qualitative strand) allows an exploration of different perspectives, including an appreciation of the extent to which they converge. This has been found to have better predictive strength in the general bullying literature (Swearer, Siebecker et al., 2010).
- Large and representative sample sizes permit the possibility of generalising findings with a greater sense of confidence (Cohen, Manion, & Morrison, 2007).
- Use of mixed methods research (MMR) allows for greater depth and richness compared with purely quantitative or qualitative studies, in particular in terms of offering detailed explanation of findings (Johnson, Onwuegbuzie, & Turner, 2007).
- Use of multiple strategies within a single study to assess prevalence of bullying of children with ASD, enabling comparisons to be made across methods.

In terms of contributing to knowledge about bullying of children with ASD, the following areas (that were noted in the literature review as under-researched or not yet studied) are explored:

- Prevalence levels of children with ASD, including a comparison with other SEND areas of need, in order to assess the relative levels of vulnerability.

- Victim role is explored in order to discover whether there is a higher than average proportion of bully-victims, in the light of high levels of behaviour problems found in this group (Macintosh & Dissanayake, 2006). Levels are also compared with other SEND areas of need.
- An investigation of risk and protective factors for bullying in the light of general bullying literature and the emergent ASD literature:
    - Are they the same or different for children with ASD compared with their TD peers, given that behaviour patterns may follow a different trajectory (Hebron & Humphrey, in press)?
    - Do factors beyond the child (e.g. school and family) have an influence on vulnerability to bullying, as is suggested by ecological systems theory (Bronfenbrenner, 1979a)?
    - Does bullying increase in line with the number of risk factors to which a child is exposed or is it exponential, as has been found in other areas of psychological research (Oldfield, 2012)?

These are all areas found to be in need of further exploration and which are addressed in the current study with the aim of furthering understanding of the bullying of children and young people with ASD.

2.7.2 Research questions (RQs)

RQ1: Prevalence of bullying and victim role

a) What is the prevalence of bullying of children and young people with ASD according to teacher and parent-reports?
   i. How does prevalence vary according to the measurement used?
   ii. How does this compare to the broader SEND population?
   iii. What is the rate of concordance between teacher and parent-reports of bullying for children and young people with ASD?

b) Of those children and young people with ASD who are reported by teachers and parents to be bullied, what is the ratio of victims to bully-victims?
   i. How does this compare to the broader SEND population?
   ii. What is the rate of concordance between teacher and parent-reports of victim status (victim or bully-victim) for children and young people with ASD?

RQ2: Risk and protection

a) Factors associated with increased (risk) or decreased (protective) levels of bullying of children and young people with ASD:
   i. What are the risk/protective factors according to teacher-report?
   ii. What are the risk/protective factors according to parent-report?
   iii. What is the rate of concordance between teacher and parent-reports of risk/protective factors for bullying?

b) Cumulative risk according to teacher and parent-report:
   i. Is the risk of being bullied predicted by a cumulative increase in risk factors?
   ii. What is the relationship between the number of risk factors and the risk of being bullied?

RQ3: Perspectives on bullying

What are the perspectives of key stakeholders around prevalence, victim role, risk and protective factors associated with bullying of children and young people with ASD?

CHAPTER 3: METHODOLOGY

3.1 Introduction

The intention in this chapter is to explain how the study was conducted, and to justify the choice of methodology in the context of the research questions. An understanding of epistemology is necessary in order to inform many of the decisions made in the design of a study, and this is covered in the first section of this chapter. A pragmatic approach was adopted: this is discussed and justified along with a consideration of its advantages and potential drawbacks, including how to ensure quality of research.

There is a brief overview of the evaluation of the *Achievement for All (AfA)* evaluation (Humphrey et al., 2011) from which the data for this study were taken. Included in this section is a discussion of how the current study differs from and is independent of *AfA*.

The design of the study is described in detail, with consideration of the quantitative and qualitative elements, participants, and characteristics of the final samples, materials, and procedure. Following this, the analytical strategy for the quantitative data is described first, followed by the method used to analyse the qualitative data.

The final section gives attention to the ethical considerations of the study and explains how these were managed in the context of mixed-methods research.

3.2 Epistemology and pragmatism

3.2.1 Paradigms and epistemological concerns

Epistemological assumptions in research are an important consideration: they provide not only the foundation and framework in which it takes place but also guide methodological decisions. Epistemology exists within the broader context of paradigms. Paradigms are ways of viewing the world, starting with philosophical assumptions and ending with the research. A detailed discussion of all paradigms is beyond the scope of this thesis; however, it is of note that four main ones dominate educational and psychological research: post-positivist, constructivist, transformative and pragmatic (Mertens, 2005). Each of these paradigms begins with an ontological standpoint that feeds into the epistemology and then the methodology, as demonstrated in Figure 6.

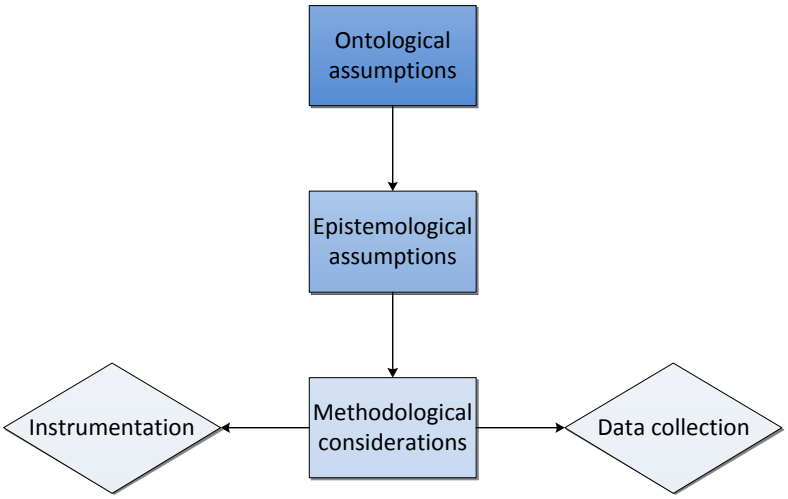

Figure 6: Epistemology situated within processes influencing study design (adapted from Hitchcock & Hughes, 1995, p. 21)

The paradigm chosen by the researcher therefore has a profound influence on the way in which the research is conducted, and it is considered a vital acknowledgement by many methodological writers (e.g. Guba & Lincoln, 1994).

There are stark differences between some of the paradigms, particularly with respect to the post-positivist and constructivist ones that are often referred to as the quantitative and qualitative approaches. The differences between these methodological approaches have long been viewed as dichotomous, with fierce debates between purists from the different approaches arguing over the perceived

supremacy of their preferred method (Johnson & Onwuegbuzie, 2004). This dispute has led to an *incompatibility thesis* asserting that the two competing methodologies should never be combined (Howe, 1988).

Nevertheless, while the polemic dispute between purists is likely to continue, others have proposed what has become known as the *third way* (Johnson & Onwuegbuzie, 2004): pragmatism. As suggested by its title, pragmatism is more practical and aims to use the method that is best suited to the questions being explored, rather than strict adherence to a single approach. This is the approach that has been chosen for the current study, and the rationale behind this choice is explained in the following section.

3.2.2 Pragmatism

Pragmatism is often thought of as taking the "middle position philosophically and methodologically" (Johnson & Onwuegbuzie, 2004, p. 17). This flexible approach is enhanced by its use of "a logic of enquiry" (ibid.), and a justification for the pragmatic researcher to "study what interests you and is of value to you, study it in the different ways that you deem appropriate, and utilize the results in ways that can bring about positive consequences within your value system" (Tashakkori & Teddlie, 1998, p. 30). Thus, while single methods can and are used in pragmatic research, it tends to be associated with a more pluralistic approach that includes extensive use of mixed methods (Creswell & Plano Clark, 2011). In this context, Biesta (2010) describes pragmatism as providing "a set of tools that can be used to address problems – not in the least problems created by other philosophical approaches and positions" (p. 97), allowing research to focus less on an abstract quest for knowledge, and more on finding answers to specific, real-world problems (Greene & Hall, 2010; Morgan, 2007).

With its potential to offer a flexible and practical approach to answering research questions, pragmatism has become the preferred epistemology for many mixed methods researchers. Nevertheless, it has attracted criticism for having a number of weaknesses. Johnson and Onwuegbuzie (2004) note that some of the perceived flaws revolve around the practical, solution-focused nature of pragmatism, with the argument that this sort of applied research may lead to neglect of more fundamental

questions about society. In addition, it has been accused of under-estimating the importance and influence of a researcher's world-view, even if such beliefs remain implicit rather than explicit in many studies (Maxwell & Mittapalli, 2010). Linked to this is a criticism not directed at pragmatism itself but instead at some of its proponents for adopting it as a "mindless mantra" (Freshwater, 2007, p. 135), if it is adopted blindly and as a convenient solution that avoids thorough philosophical consideration of a problem (ibid.).

However, it can be argued that many of the criticisms of pragmatism are also its strengths, in that there is a need for practical research that can inform practice and which deliberately strives to avoid abstract debate. Furthermore, if research is conducted rigorously and with attention to quality, then issues about world-views and choice of philosophical stance should be less vulnerable to criticism.

3.2.3 Pragmatic mixed methods

Pragmatism can provide an appropriate framework and epistemology for many questions in social science research and is the one adopted for the current study. Its ability to acknowledge the usefulness of traditionally opposed post-positivist and constructivist approaches has led to it becoming the main philosophy associated with mixed methods research (MMR). While the popularity or MMR has increased greatly in recent decades, this has led to different definitions emerging. While it beyond the scope of this study to offer a detailed analysis of the differing conceptions of MMR, Johnson et al. (2007) provide a useful working summary based on their analysis of 19 previous definitions:

> Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (p. 123).

There are a number of advantages to combining research methods in this way, with many supporters of MMR proposing their own particular versions (Johnson et al., 2007). As an example, Greene, Caracelli and Graham (1989) suggested five reasons for using mixed methods, as shown in Table 1.

Rationale	Examples of how it might function
Triangulation	To seek corroboration using different methods to explore the same phenomenon
Complementarity	To enrich findings by using more than one method
Development	Using the outcomes of one method to inform the other method
Initiation	Using paradoxes in findings to reframe questions
Expansion	Broadening the scope of the research by using more than one method

Table 1: Five rationales for using MMR, adapted from Greene et al. (1989)

Thus, there are compelling arguments for combining methods. Other often cited advantages of combining methods are: the weaknesses of a particular method are compensated for by the strengths of the other (Johnson & Onwuegbuzie, 2004); researcher bias can be reduced (Mertens, 2005); greater insight can be provided into an issue (Collins, Onwuegbuzie, & Sutton, 2006); and there is an extensive range of possible quantitative-qualitative combinations that can be tailored to suit research questions (Creswell & Plano Clark, 2011).

Nevertheless, there are also criticisms of MMR that need to be acknowledged before they can be addressed. Purists still contend that research should be either quantitative or qualitative, which is closely linked to the *paradigm wars* in which the two approaches are considered mutually incompatible (Maxwell & Mittapalli, 2010). Practical considerations are that it is more time-consuming and also expensive, with high expectations on researchers to master quantitative and qualitative methodologies (Tashakkori & Teddlie, 2010). While such accusations should be explored in the context of MMR, none of them are insurmountable and should be confronted in the context of the quality of the research.

In the current study, pragmatism and pragmatic mixed methods were chosen as the guiding framework to answer questions that are concerned with exploring trends in the bullying of children and young people with ASD, while at the same time gaining a rich insight and understanding of the experience of this phenomenon. A purely quantitative or qualitative approach would have yielded a less complete answer to the questions posed. It is the researcher's consideration that the MMR approach provides the most comprehensive manner to explore the questions in this study.

3.3 Issues of quality in mixed methods research

Quality in research is often not mentioned explicitly in studies, yet the author considers that reflecting on issues of rigour and including safeguards to promote quality are essential aspects of good research. As MMR necessitates using techniques from traditionally different approaches, ensuring overall quality becomes more complex but also increasingly important.

A great deal has been written on how to ensure a high level of quality in different types of research, and a starting point in MMR is to apply quality criteria specific to the type of research being carried out, i.e. a quantitative strand is subject to quantitative quality standards, with the same being true for the qualitative one. While there is still debate and a lack of consensus over the criteria that should be chosen (with this particularly true for qualitative research) (O'Cathain, 2010), Mertens (2005) offers a clear overview of the main criteria needed in both approaches, and these are presented in Table 2.

Criteria for assessing quality in research	
Quantitative	**Qualitative**
Internal validity	Credibility (parallels internal validity)
External validity	Transferability (parallels external validity)
Reliability	Dependability (parallels reliability)
Objectivity	-
-	Authenticity
-	Transformative

Table 2: Quality criteria for quantitative and qualitative studies (Mertens, 2005, p. 302)

In the current study, these issues are addressed in the sections on Design, Methods, Procedure and Analytical Strategy. Nevertheless, it is argued that in addition to these considerations MMR should be assessed in its own right for quality, due to the meta-inferences drawn from the entire study (Tashakkori & Teddlie, 2008). This necessitates an additional set of expectations that reflect the more complex nature of the research (Creswell & Plano Clark, 2011). While there are currently no accepted criteria for assessing quality in MMR, a number of writers have attempted to conceptualise it (e.g. Bryman, Becker, & Sempik, 2008; Creswell & Plano Clark,

2011; Onwuegbuzie & Johnson, 2006), with some frameworks devised (e.g. Dellinger & Leech, 2007; Tashakkori & Teddlie, 2009). Further to these proposals, O'Cathain (2010) has produced her own set of quality criteria based on a critical review of the pre-existing literature. In what she considers a preliminary comprehensive framework, she proposes eight domains that should be addressed when ensuring quality of MMR:

- Planning quality
- Design quality
- Data quality
- Interpretive rigour
- Inference transferability
- Reporting quality
- Synthesisability
- Utility

Each of these domains is explored and explained in detail, meaning that this is a complex but achievable set of criteria to use, especially when it is addressed stage by stage as the research project progresses. This is the approach that influenced attention to quality in the current study, although the criteria in Table 2 are those specifically documented to demonstrate quality.

3.4 Context of the study: *Achievement for All*

The data used in this study were drawn from the evaluation of a government-funded pilot project called *Achievement for All* (*AfA*) (DCSF, 2009). The University of Manchester was commissioned by the Department for Education (DfE), formerly the Department for Children, Schools and Families (DCSF), to evaluate the overall effectiveness of the pilot. In this context, it is important to be able to demonstrate how the data collected for *AfA* were used in the present study, and also to understand how the current research differs from the *AfA* evaluation project.

3.4.1 *Achievement for All*

The *AfA* pilot project ran from two years from September 2009 until August 2011 and had a budget of £31 million. It took place in ten local authorities in England selected to be broadly representative. In total, 454 schools took part, including primary and secondary mainstream schools, special schools and pupil referral units (PRUs), with both urban and rural schools chosen to reflect the varied demographic nature of England. Pupils with SEND in Years 1, 5, 7 and 10 participated in the pilot. The aims of *AfA* were to support schools and local authorities in providing improved opportunities to children and young people with SEND, thereby enabling them to reach their full potential. There were three main strands in *AfA*, as shown in Figure 7.

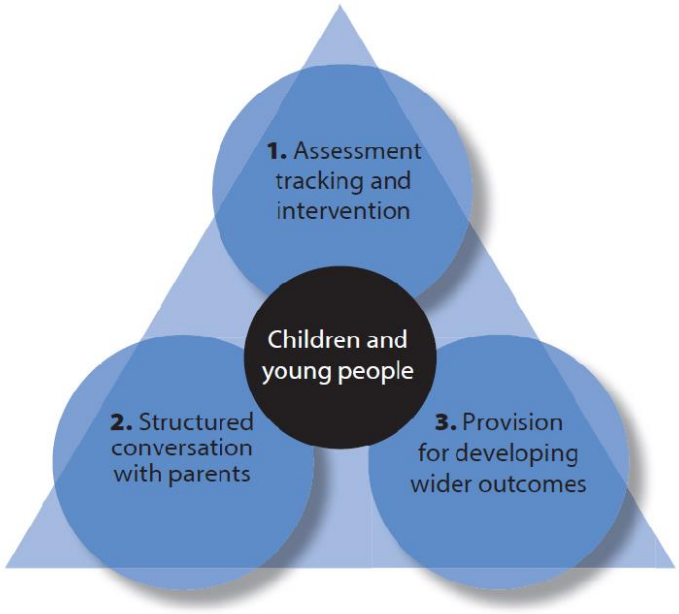

Figure 7: Overview of the structure of *AfA* (DCSF, 2009)

3.4.2 Evaluation of *Achievement for All*

The evaluation of *AfA* ran alongside the implementation of the pilot. It had as its remit to explore the impact of *AfA* on a number of outcomes for children and young people with SEND, and also to investigate the processes and practices in schools that were the most effective in improving these outcomes. There were two research questions: the first one was largely quantitative in nature, while the second was qualitative. The data for RQ1 came from surveys (teacher and parent), school-level surveys and academic, attendance and contextual data obtained from DfE and schools. There were two cohorts of children and data were collected at three time-points (January 2010, January 2011, and June 2011), in addition to baseline data collected at the beginning of the evaluation. For RQ2 there were interviews with local and regional professionals, and also attendance at *AfA* conferences. In addition, two schools per local authority were recruited as case study schools, with five children in each school selected as case study pupils. Data were obtained via interviews with teachers, parents and children, and document analysis. Further information about quantitative and qualitative data collection that is relevant to the current study is given in later sections of this chapter.

Once analysed, the results were presented to DfE in an interim report (Humphrey et al., 2010) and a final report (Humphrey et al., 2011). It should be noted that the author of this study worked as a research assistant on *AfA* and was involved in the analysis and writing of the reports.

3.4.3 Independence of the current study

It is necessary to acknowledge that all of the data used in this doctoral study were taken from the data collected during *AfA*. Nevertheless, there remain key differences between the two studies that ensure that they are not only independent of one another, but that the current study is able to provide a unique contribution to the field of bullying and ASD. These distinctions are detailed in Table 3.

Section	Doctoral study	*AfA* evaluation
Outline	Independent doctoral study lasting three years and requiring thesis and viva	Evaluation lasting two years with final report to DfE.
Staffing	Author of the thesis	Large research team
Aim (1)	To investigate prevalence of bullying, and risk/protective factors influencing it in the ASD school population	To assess effectiveness of a pilot project by examining a broad range of outcomes
Aim (2)	To contribute to theory on ASD and bullying	Atheoretical approach
Aim (3)	To inform current practice in schools and more broadly in the ASD community (e.g. National Autistic Society, Research Autism)	Primary focus on practical implications for schools
Design (1)	Cross-sectional	Longitudinal
Design (2)	Concurrent embedded mixed methods (QUAN → *qual*)	Convergent parallel design
Typology (Patton, 2002)	Basic / applied research	Evaluation research
Group(s) of interest	Children with ASD as primary focus	Children with all SEND-types, schools, parents
Main statistical analysis	Multiple regression	Multi-level modelling
Variables	Assesses variables of interest in ASD and bullying, including some not explored in *AfA*, e.g. mode of transport to/from school	Variables used were specific to *AfA*, e.g. increases in parental engagement
Quantitative analysis (1)	In-depth analysis of children with ASD	Analysis across all SEND groups
Quantitative analysis (2)	Analysis of risk / protective factors via cumulative risk models	Not addressed in *AfA*.
Participants (qualitative phase)	Teachers and parents (of children with ASD)	Teachers, parents and pupils with all SEND types
Data used (qualitative phase)	Interviews	Interviews, focus groups, document analysis
Primary target audience	Academic community, policy makers in schools and further afield	DfE, schools, policy makers

Table 3: Differences between the current doctoral study and the *AfA* evaluation

3.5 Design

3.5.1 Overall design

One of the principal advantages of MMR is its inherent design flexibility. The current study is an embedded design which permits (in this case) a quantitative design to contain a supplemental qualitative strand which is intended to enrich the overall study (Creswell & Plano Clark, 2011). This design is also referred to as a "fully mixed concurrent dominant status design," where three main components are considered (Leech & Onwuegbuzie, 2009, p. 271). In the current study the quantitative components were dominant (QUANT → *qual*). Morse (2010) recommends diagramming as practical way to "envision the core method, the supplemental component, and the *pacing* of the project […]; and to determine the *point of interface*" (author's emphasis in italics, p. 342). With this in mind, the flowchart presented in Figure 8 gives a diagrammatic overview of the QUAN(*qual)* design used in this study.

While the *AfA* evaluation was longitudinal in nature, it was decided for a number of reasons that the current study would use cross-sectional data. First, RQ1 and RQ2 were focused on investigating bullying as a phenomenon at a particular point in a child's life, rather than looking for change over time or in response to a specific intervention. On a similar note, RQ3 explored the perspectives of pupils, parents and teachers but did not aim to look at measurable changes over time. Second, although longitudinal research can infer causation, the current study aimed to explore differences in bullying from a wide age-range of pupils (Years 1, 5, 7 and 10): this would be impractical for a doctoral study lasting only three years. Third, there is a risk of attrition in longitudinal studies that can severely affect the ability to generalise findings, while this is not an issue for cross-sectional research.

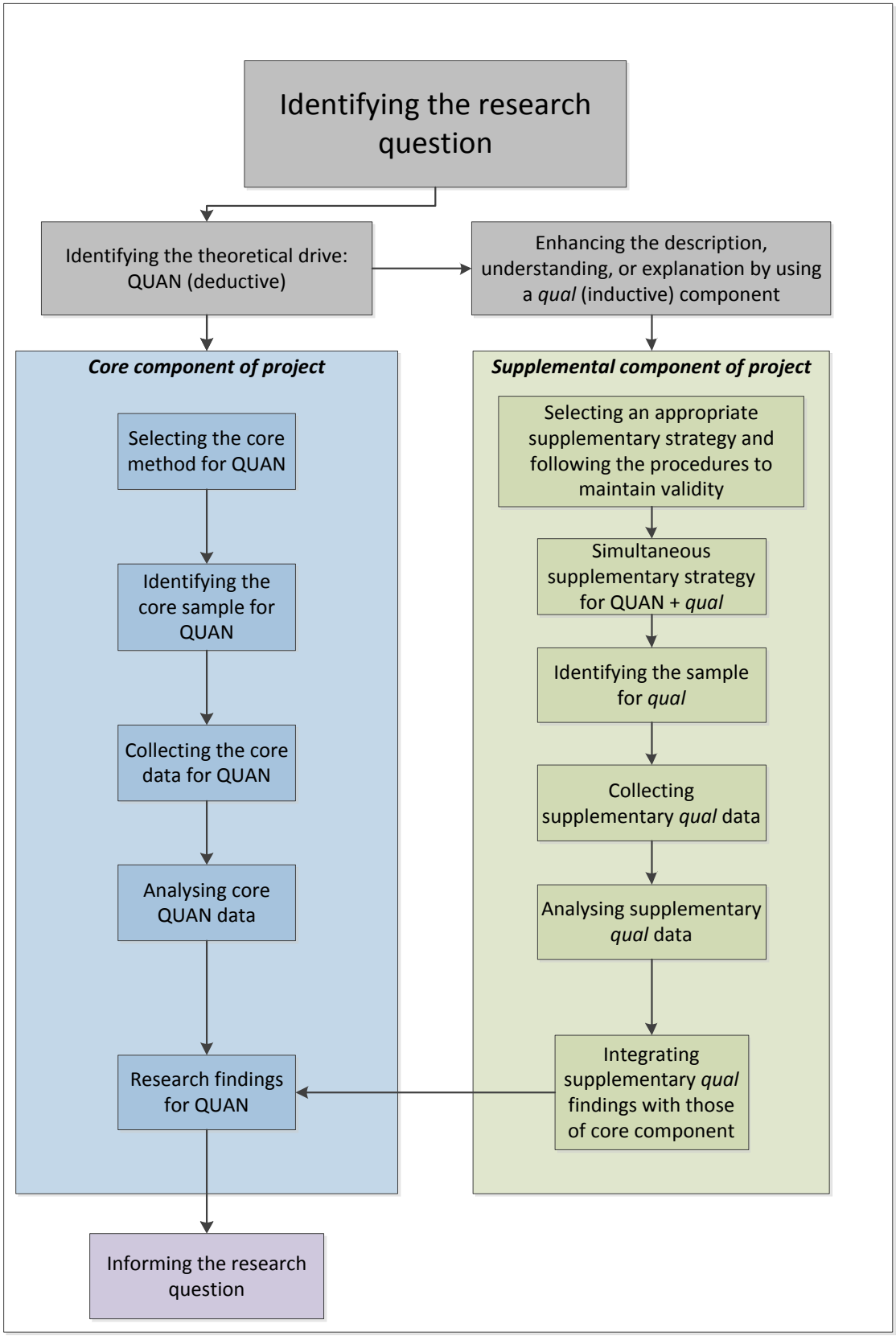

Figure 8: Flowchart of the mixed method design

There are several benefits to using the embedded mixed methods design (Creswell & Plano Clark, 2011), but in particular (and in the case of the current study) it was chosen so that supplemental qualitative data could be used to enhance the larger overall design, "putting 'meat on the bones' of 'dry' quantitative findings" (Bryman, 2006, p. 106), and giving a more personal context. Nevertheless, in order to use this design successfully, it is also necessary to be aware of its challenges. For example: the researcher must be able to manage both quantitative and qualitative methods and the subsequent analytical techniques; there must be a clear rationale for collecting this supplemental data; integration of results can be problematic; and the smaller qualitative sample may have bias that is not present in the larger quantitative one (Creswell & Plano Clark, 2011). None of these challenges is insurmountable, and prior awareness makes their management more straightforward.

3.5.2 Quantitative approach

A quasi-experimental approach was adopted to answer RQ1 and RQ2 using data derived from surveys (teacher and parent), the National Pupil Database (NPD), school census and local authority sources. RQ1 assessed bullying prevalence and the victim role of children with ASD (compared with other SEND groups) and is largely descriptive in nature. RQ2 on risk and protection was designed with multiple regression as its main analytical procedure, as it is able to address the complexity of multiple predictor variables and large sample sizes. A detailed description of these specifically quantitative approaches is given in the following sections of this chapter.

3.5.3 Qualitative approach

A qualitative approach was adopted to answer RQ3 on perspectives of bullying according to teachers and parents of children with ASD, and the children themselves. Interviews were used to generate data that could be analysed thematically. This is an approach that has been recommended by a number of proponents of MMR and is viewed as adding an additional dimension to statistically-based results (e.g. Johnson & Onwuegbuzie, 2004). While it is useful to use qualitative data to enrich quantitative findings, it is also important to note that sometimes there is not the anticipated convergence in the two sets of data (Teddlie & Tashakkori, 2010). Far

from being a short-coming of MMR, this potential incongruity offers opportunities to explore additional features of the research topic that emerged due to the more flexible strand of the study.

3.5.4 Integration of the quantitative and qualitative strands

One of the potential challenges of the embedded MMR design is in successfully integrating the quantitative and qualitative strands. As an embedded approach, the discussion of results is driven by findings from the quantitative analysis, with the qualitative findings used to enrich it by giving real-life examples of some of the phenomena found to be statistically significant. Where findings diverge, as mentioned in the previous section, this provides an opportunity to explore further issues that were not investigated through the quantitative data. Therefore, while a small qualitative sample can never be used in isolation to generalise findings, in the context of embedded MMR, it can serve to enhance the statistically-driven findings with increased levels of depth and insight.

3.6 Participants

Participants in the study were drawn from the sample used in the *AfA* evaluation (see Section 3.4.2). The pupils who were participants in this study were all selected as they were in Years 1, 5, 7 and 10, and had been identified by their school as being on the SEND register for the purposes of RQ1, and specifically as having ASD for RQ2. Teachers and parents completed a survey on the identified children, with additional data collected via the school, LA, NPD, School Census, and EduBase[4]. In the case of the five focus pupils, interviews were conducted with the pupils, their parents and teachers. As the research questions target different samples of pupils, these are dealt with separately for the sake of clarity.

3.6.1 Quantitative strand

In order to be able to assess the datasets, some preliminary information is necessary regarding RQ1 and RQ2, and this is presented in Tables 4 and 5.

RQ1	Optimum sample	Surveys attempted	Surveys valid for analysis[5]	% from optimum sample
Teacher survey	26,636	17,042	15,699	58.94%
Parent survey	26,636	3,074	2,380	8.94%

Table 4: Actual versus optimum sample size for RQ1

The sample for RQ1 made use of the entire *AfA* evaluation sample drawn from over 450 schools and which was deemed to be representative according to baseline wave of data collection (Humphrey et al., 2011). It is stated in the final report (ibid.) that in terms of statistical representativeness, the sample used in the teacher survey had a 1.2% sampling error with 95% confidence intervals for the estimated total number of pupils in England with SEND (approximately 1,690,000 pupils). For the parent survey, there was a 3.4% sampling error with 95% confidence intervals for the same pupil population. Comparisons between the composition of the *AfA* sample and national averages in terms of SEND-type also indicated a high level of similarity,

[4] EduBase is a database containing information about all educational establishments in England and Wales.

[5] Inclusion criteria were teacher nomination of a SEND category and at least one bullying section completed on the survey (mean score on the bullying scale, role nomination, of frequency nomination).

with the proportion of children in each group within 4% of nationally reported levels (with the exception of moderate learning difficulties [MLD] and behavioural, emotional and social difficulties [Besd]). Therefore, as RQ1 was principally concerned with taking the ASD group and comparing it with other SEND areas of need, no further analysis of the characteristics of the dataset for RQ1 was considered necessary.

However, the *AfA* evaluation did not look closely at the characteristics of individual SEND groups. As the focus of this doctoral study is on children and young people with ASD, it was necessary to investigate the profile of the ASD group used in this research and establish the extent to which it could be deemed representative of the overall ASD population. The sample size for the ASD group as explored in RQ2 is presented in Table 5.

RQ2	Optimum ASD sample[6]	Surveys valid for analysis[7]	Outliers removed	Final sample size for analysis	% left from optimum sample
Teacher survey	761	725	3	722	94.88%
Parent survey	761	121	2	119	15.64%

Table 5: Actual versus optimum sample size for RQ2

It is of note that the total possible dataset for pupils with ASD as a proportion of all pupils with SEND was 4.85%, whereas the national average according to 2011 national data (DfE, 2011c) is 8.8% of all pupils with SEND. This is likely to reflect the fact that the current study includes pupils at SA whereas DfE figures do not. Indeed, by analysing only those pupils at SAP and with Statements in the *AfA* teacher dataset, the percentage of pupils with ASD as a proportion of all SEND groups was slightly higher than the national average at 9.6%.

The characteristics of the ASD sample are shown for the teacher dataset in Table 6 and for the parent dataset in Table 7. The variables are shown with the proportion of the sample within each group and compared to national averages through percentage difference. The source of the national information was drawn from two sources: the

[6] Inclusion criterion was that a teacher had nominated a child as having ASD.
[7] Inclusion criterion was that there was a valid *bullying mean* score, even if other sections were missing.

DfE SEND analysis (2010), indicated by †, and the 2011 census data (DfE, 2011c) indicated by ‡.

Variable	Number	Groups of predictor variable	% of cases per group	National average for ASD	% diff between groups
‡Gender	722	Male	85.9	85.3	0.6
		Female	14.1	14.7	0.6
†FSM eligibility	720	No	75.8	77.9	2.1
		Yes	24.2	22.1	2.1
†Ethnicity	713	White British	84.4	88.2	3.8
		Other	15.6	11.8	3.8
‡School type	721	Mainstream	81.3	70.5	10.8
		Special	18.7	29.5	10.8
†Year group	722	Year 1	23.1	18.9	4.2
		Year 5	35.3	24.4	10.9
		Year 7	23.8	30.3	6.5
		Year 10	17.7	26.4	8.7
†SEND provision	712	SA	10.1	-	-
		SAP	40.4	31.6	8.8
		ST	49.4	68.4	19.0

Table 6: Characteristics of the teacher dataset

Variable	Number	Groups of predictor variable	% of cases per group	National average for ASD	% diff between groups
‡Gender	119	Male	82.4	85.3	2.9
		Female	17.6	14.7	2.9
†FSM eligibility	119	No	75.6	77.9	2.3
		Yes	24.4	22.1	2.3
†Ethnicity	119	White British	88.2	88.2	0.0
		Other	11.8	11.8	0.0
‡School type	119	Mainstream	86.6	70.5	16.1
		Special	13.4	29.5	16.1
†Year group	119	Year 1	23.5	18.9	4.6
		Year 5	37.0	24.4	12.6
		Year 7	25.2	30.3	5.1
		Year 10	14.3	26.4	12.1
†SEND provision	118	SA	6.8	-	-
		SA+	43.2	31.6	11.6
		ST	50.0	68.4	18.4

Table 7: Characteristics of the parent dataset

In both the teacher and parent datasets it is important to note that while figures for *Gender*, *FSM eligibility* and *Ethnicity* were very similar to national averages, the discrepancies were greater for *School type* and *SEND provision*. Once again, this is likely to be because DfE data are only based on pupils at SAP and Statements, while this study focused on pupils at all stages of need, which included those at SA. There were also inconsistencies in *Year group*, and this may reflect the lower levels of response from teachers and parents of pupils in secondary schools compared with primary schools. Thus, while there were some minor differences between the characteristics of the sample in this study and national averages, these can potentially be explained, indicating that the sample used in this study was broadly comparable to the ASD population.

3.6.2 Qualitative strand

There were five focus pupils in the qualitative strand of this study. They were selected from *AfA* case studies on the basis of being identified as having ASD and having gained additional consent to participate in the Case Study. All of these pupils were part of the overall *AfA* sample and the route that led to their inclusion in the qualitative strand is as described in Figure 10. A brief overview and background for each of the pupils is given below[8]:

Pupil 1: Robbie was the youngest of the focus pupils and was in Years 1 and 2 during the data collection period. He attended a large infant school in a relatively affluent suburb of a city. He was not interviewed as he was considered too young and could not have given informed consent. He was the older of two children, and parents were only alerted to the fact that his development was atypical when he started at Nursery. He had received a diagnosis of ASD and also ADHD, and was at SAP in terms of support. At the time of the interviews, Ritalin had been proposed for the ADHD, but parents had not yet agreed to it, due to concerns about giving medication to a child of his age. He was below age-appropriate academic levels.

[8] It is important to note that all of the pupils attended mainstream schools and were categorised as "White" for ethnicity. None of these pupils used public/school transport to travel to school, although Pupil 6 did start to take the bus in Year 8).

Pupil 2: Georgina was in Years 5 and 6 for the data collection. She attended primary school in a small village in a largely rural and reasonably affluent area. In addition to a diagnosis of ASD, she had learning delay, dyspraxia and other medical needs that occasionally led to absences from school (attendance in the first year of data collection was 88%). Her difficulties were identified at Nursery and she was assessed for a statement of special educational needs before starting school. She received one-to-one support throughout the school day from a teaching assistant whom she had known for many years. Georgina was not interviewed as it was not felt to be appropriate due to her learning delay and inability to give informed consent.

Pupil 3: Jack was in Years 5 and 6 for the data collection. He had a diagnosis of ASD and was at SAP in a local authority where statements only tend to be given to children who need to attend special school. He was eligible for free school meals and attended a smaller than average junior school in an urban setting. He received speech and language support from an LA specialist, and also had some support in class from a teaching assistant to help with literacy and numeracy. He was very keen on sport, especially football, which had enabled him to integrate reasonably well with the other pupils in his class. There had been some behavioural issues, and he was often tired during the day due to sleep problems.

Pupil 4: Samuel was in Years 5 and 6 for the data collection. He attended the same primary school as Jack, but was not in the same class. He had a diagnosis of ASD and was at SAP, although his mother was enquiring about assessment for a statement. There had been some serious behavioural problems and he had been excluded on at least one occasion in the past when he had lashed out at a teacher. He received some support in class from a teaching assistant, as he had particular difficulty in writing. He loved physics and computer games and appeared to like coming to school. He was very articulate and had a quirky sense of humour.

Pupil 5: Francesca was the oldest of the focus pupils and the only one at secondary school. She was in Years 7 and 8 for the data collection and attended an all-girls Catholic comprehensive school in an urban area. She had a diagnosis of ASD and a statement of special educational needs that had been received while at primary school. She was bilingual in another European language (her parents were non-native speakers of English), but had difficulties in literacy which was having an impact on progress in both languages. She also had particular difficulties in Mathematics, and her progress in all curriculum areas was below age-related expectations. She received the support of a teaching assistant in most lessons. There were no issues with behaviour or attendance.

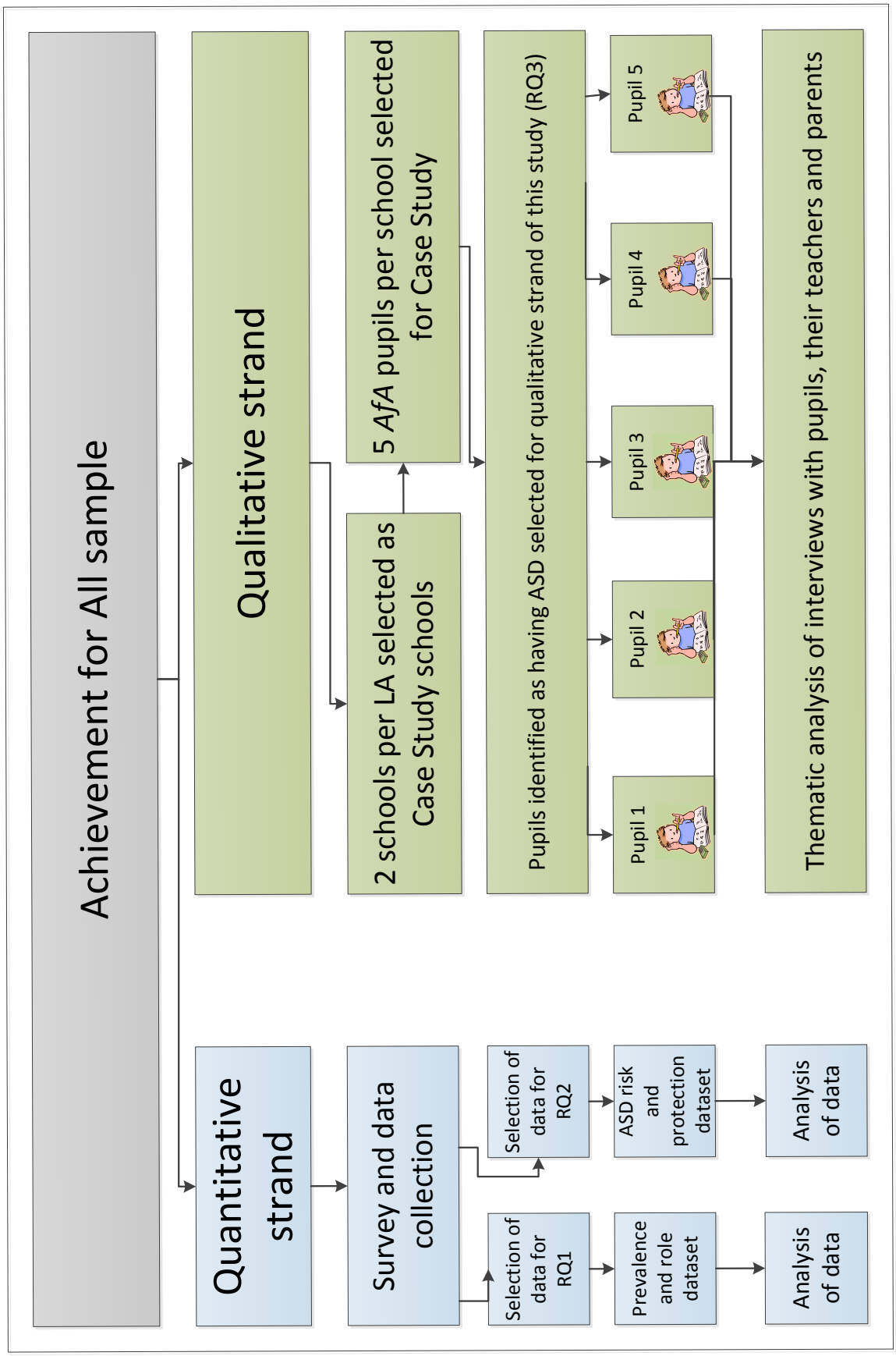

Figure 9: Selection of focus pupils (quantitative strand shown for comparison)

3.7 Materials

3.7.1 Quantitative strand

A number of variables were used to investigate RQ1 and RQ2. For clarity, the variables and their sources are presented in Table 8. As is apparent from the table, while some of the variables were obtained via national databases and other sources linked to education, a number were obtained from the surveys specifically designed for *AfA*.

VARIABLES FROM SURVEYS		
Variable	**Description**	**Source**
RQ1 and RQ2		
SEND area of need	The 11 SEND categories of need were listed according to the four broad areas of need (DfES, 2001), with ASD as a separate group[9]	Calculated from the SEND-type recorded on the teacher survey
Bullying mean score	Mean Wider Outcomes Survey for Teachers (*WOST*)/Wider Outcome Survey for Parents (*WOSP*) score, ranging from 0-3, with higher scores indicative of increased exposure to bullying	Teacher and parent surveys
SEND provision	Three possible categories: SA, SAP, Statement of SEND	Teacher survey
RQ1 only		
Bullying role	Role of child in bullying: bully, victim, bully-victim, bystander, not involved	Teacher and parent surveys
Bullying frequency	How often the child was the victim of bullying: daily, weekly, termly, not involved	
RQ2 only		
Behaviour mean score	Mean *WOST/WOSP* score, ranging from 0-3, with higher scores indicative of greater behavioural problems	Teacher and parent surveys
Positive relationships mean	Mean *WOST/WOSP* score, ranging from 0-3, with higher scores	

[9] See Section 2.9 Analytical Strategy for details of these areas of need.

score	indicative of better relationships with peers and school staff	
Parental engagement mean score	Mean *WOSP* score from 0-3, higher scores indicative of greater levels of parental engagement and confidence in the school	Parent surveys
Wider participation mean score	Mean *WOSP* score from 0-3, higher scores indicative of greater levels of participation in activities outside the school day	
VARIABLES FROM OTHER SOURCES		
Variable	**Description**	**Source**
RQ2 only		
Gender	Male or female	NPD
FSM eligibility	Yes or no	
Ethnicity	White British or other	
School type	Whether the school attended was a mainstream primary or secondary, pupil referral unit or special school	
Use of public/school transport	Whether the child used public/school transport or not to travel to and from school	School census
Year group	The year group the pupil was in at the time of the survey: Years 1, 5, 7 or 10	Local authority
Academic achievement	Pupils' achievement in Maths and English were submitted as either P-levels, National Curriculum Levels or GCSE grade levels These were converted to a points score (1-65) for each curriculum area (Humphrey et al., 2011). The two scores were combined to give a combined academic score (max 130) which was transformed to a Z-score to allow comparisons across year-groups.	Achievement was recorded by teachers who then submitted it to the *AfA* research team via National Strategies. The conversion to a points score was done as part of the *AfA* evaluation.
Attendance	Percentage attendance during the year when teachers/parents completed survey	Local authority
School urbanicity	Whether a school was located in a predominantly urban or rural area	Edubase

Table 8: Variables used in the quantitative strand, including description and source

Survey design

Two bespoke surveys were used to collect the variables detailed in the first section of Table 8. The reason for designing custom-made tools was that no pre-existing surveys covered all of the wider outcome areas required for the evaluation of *AfA*. To use separate surveys would have made the process of data collection onerous for teachers and parents, and so it was decided that a combined survey would be a more efficient tool. The surveys were constructed by the *AfA* research team (including the author), and the process of construction went through several stages to ensure rigour:

1. Initial scoping study of pre-existing measures in each of the wider outcome areas including the research literature
2. Draft survey sections for each of the wider outcomes
3. Discussion in the research team and refinement of items
4. Draft final surveys and further discussion
5. Piloting of the surveys in non-*AfA* schools
6. Psychometric analysis of the survey properties, including removal of invalid items

The Wider Outcomes Survey for Teachers (WOST)

The *WOST* (Humphrey et al., 2011) is a survey for teachers that measures a child's social experience in three areas, which are Bullying, Behaviour, and Positive Relationships (see Appendix 1 for the full survey). The Bullying section contained a definition (DCSF, 2008a, p. 1), which was included to ensure that all respondents were presented with a similar concept of bullying. There were two questions asking respondents to rate the frequency of the child's involvement in bullying incidents, and also to indicate the child's role in bullying. The sub-scale contained seven items that focused on the child as a victim of bullying rather than as a perpetrator (e.g. *The pupil is called names or teased by other children*). The Behaviour sub-scale comprised six items (e.g. *The pupil breaks things or spoils things on purpose*). The Positive Relationships sub-scale contained seven items (e.g. *The pupil has at least one good friend*). All sub-scales were scored on a four-point Likert scale.

The Wider Outcomes Survey for Parents (WOSP)

The *WOSP* (Humphrey et al., 2011) is a survey for parents that measures a child's social experience in five areas: the same three as in the *WOST*[10] and in addition Parental Engagement and Confidence in the child's school and Wider Participation (see Appendix 1). The Bullying sub-scale contained the same definition and questions on bullying frequency and role as the *WOST*, and there were eight items in the sub-scale. The Behaviour sub-scale comprised nine items, and the Positive Relationships sub-scale contained 10 items. The Parental Engagement and Confidence sub-scale contained eight items (e.g. *The school involves me in my child's learning*). The Wider Participation sub-scale comprised eight items (e.g. *There is a varied range of wider participation activities available for my child*). All sub-scales were scored on a four-point Likert scale as in the *WOST*.

Scoring of the sub-scales

All of the sub-scales were scored from 0-3 (*never / strongly disagree* = 0, *rarely / disagree* = 1, *often / agree* = 2, *always / strongly agree* = 3). The pupil's mean score for each sub-scale was calculated with a range of 0-3. If two or fewer items were missing, then the mean was calculated based on the number of completed responses. This is the approach taken with low levels of missing data in other similar surveys, e.g. the *SDQ* (Goodman, 2001).

Psychometric properties of the WOST and WOSP

It is vital to ensure that surveys can be considered valid and reliable for the purposes of the research. A detailed psychometric analysis of the properties of both surveys was conducted as part of the *AfA* evaluation following the eight principles outlined in Terwee et al. (2007). There is a full discussion of the procedures undertaken in the *AfA Final Report* (2011, pp. 117-126). A summary of the measurement properties assessed is provided in Appendix 1. It was concluded that the *WOST* and *WOSP* both have psychometric properties that are acceptable, although their credibility could be improved further by means of additional data gathering in the future. A more detailed investigation of the psychometric properties of the *WOST* is given in Wigelsworth, Oldfield, and Humphrey (in preparation).

[10] There is an additional item in the *WOSP* Bullying sub-scale, three in Behaviour and three in Positive Relationships. This is because some items were deemed to lack validity and removed following the psychometric analysis of the *WOST* but were able to be retained for the *WOSP*. The additional items can be seen in Appendix 1.

3.7.2 Qualitative strand

Data for the qualitative strand were taken from the case studies conducted as part of the *AfA* evaluation. There were five pupils who met the criteria for inclusion as focus pupils in this study. Data were collected by means of semi-structured interviews conducted with pupils, parents and teachers (and also some teaching assistants) during the course of the Case Study visits. Additional contextual information was collected on the first *AfA* visit, when families suitable for inclusion in the case study were discussed.

Type of interview

Interviews were chosen as the preferred method for data collection as they are able to provide insight on a personal level into the phenomena being explored, including experiences and attitudes. This fits well with the underlying beliefs of pragmatism, that no assumption about a single truth is made; instead, it is acknowledged that everyone's personal truth is part of their subjective experience of the world (Greene & Hall, 2010). It was decided to use multiple informants in this phase, including the pupils' own voice, in order to have as many different perspectives as possible. This in turn allows for triangulation of data, which can establish areas of consensus (as well as divergence). Interviews were conducted by three members of the *AfA* research team, including the author of this study. This has the benefit of reducing the bias that can emerge from having only one person conducting interviews.

There was initial discussion in the *AfA* research team over whether to use structured or semi-structured interviews. Structured interviews have the advantage of allowing targeted questioning, ensuring that pre-determined topics are covered, which can then be compared more easily across all participants. This method also avoids generation of large amounts of unnecessary data that can lead to a heavy burden of analysis on the researcher (Miles & Huberman, 1994). Nevertheless, as semi-structured interviews permit greater flexibility, allowing opportunities for participants to give detailed explanations and for unanticipated topics of relevance to emerge (Smith & Osborn, 2008); they were chosen as the most suitable option.

Content of the interviews

There were specific interview schedules designed for pupils, parents and teachers in the three visits (see Appendix 2 for an example of an interview schedule for each type of informant). The interview schedules were devised jointly by the *AfA* research team, with several drafts, each one progressively refined during meetings and discussions until consensus on the content was reached. In addition, and due to the nature of the government-funded evaluation, all interview transcripts were submitted to DfE to be scrutinised by the Star Chamber Scrutiny Board[11].

The questions asked to participants reflected the overall research aims of the *AfA* evaluation, and these encompassed key questions that focused on the pupils' experience of bullying. A number of the other areas of questioning included topics of interest to the current study (and which overlap with many of the variables explored in the quantitative strand). During Visit 1 issues related to the five wider outcome areas were explored for the first time, whereas on Visit 2 these were revisited in order to note whether there had been any developments. On Visit 3 these areas were revisited once more, but with more detailed questions about reasons why children might not be bullied. The rationale for this is that in the two earlier visits, the focus had been on pupils' involvement in bullying as victims. However, it became apparent that in some cases, bullying was not necessarily an issue, and so the focus in this final visit evolved towards including an exploration of factors that may protect against becoming a victim of bullying.

Although covering the same topics, separate interview schedules were designed for each type of informant. For example, the interviews with teachers focused predominantly on the child in school, while interviews with parents were able to reflect on the school experience of the child and also how this interlinked with home life. Interviews with pupils were conducted using age-appropriate language (as verified by a senior educational psychologist) and avoided questions that may have risked upsetting the child (see Appendix 2 for examples of an interview). Not every respondent was available on each visit, and Table 9 shows the interviews that were conducted for each of the focus pupils.

[11] This board assesses all applications for research conducted by or on behalf of the DfE, and is aimed at reducing the bureaucratic burden on schools.

Data	Teacher interviews			Parent interviews			Pupil interviews		
	V1	V2	V3	V1	V2	V3	V1	V2	V3
Pupil 1		✓	✓	✓	✓	✓			
Pupil 2	✓	✓	✓	✓	✓	✓			
Pupil 3		✓	✓	✓	✓	✓		✓	✓
Pupil 4		✓	✓	✓	✓	✓		✓	✓
Pupil 5		✓[12]	✓	✓	✓	✓		✓	

Table 9: Interviews conducted with focus pupils, their parents and teachers

[12] This interview was conducted with a teaching assistant.

3.8 Procedure

The explanation of the procedure is divided into the quantitative and qualitative strands. An overview of the timeline for the data collection specific to this study (as opposed to the *AfA* evaluation) is given in Figure 10.

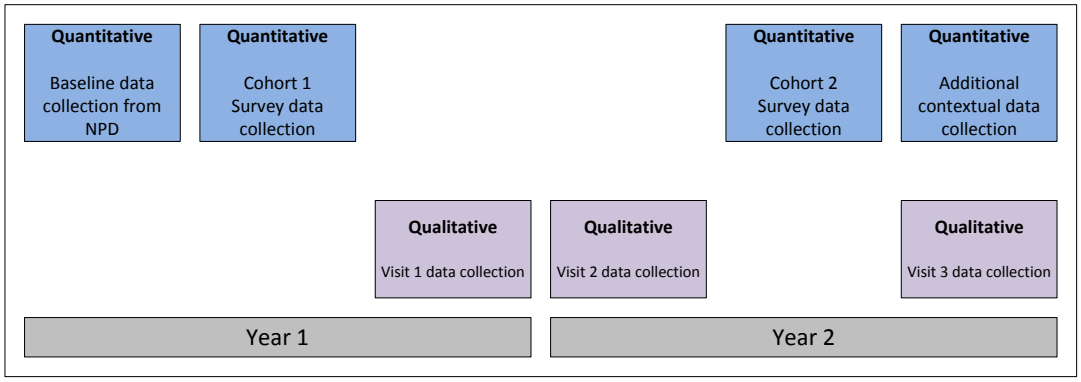

Figure 10: Timeline of data collection by term in Years 1 and 2

3.8.1 Quantitative strand

In October 2009, all schools participating in *AfA* were sent information about the evaluation to be conducted by the University of Manchester research team (see Appendix 3 for details of information sent regarding the surveys). Further to this, and in preparation for the first wave of quantitative data collection, information and consent packs were sent to all staff nominated as key teachers for pupils in AfA. Information and consent packs for parents were sent to schools in early January 2010 and it was requested that these be passed on to all parents of eligible children. Consent to participate was on an opt-out basis (148 parents in cohort 1 opted out). Shortly before the survey window opened, instructions on how to complete the online surveys were sent to teachers and parents. To ensure that all parents were given the opportunity to understand the aims of the evaluation, all of the information (and the subsequent surveys) was available in the nine most commonly spoken languages other than English[13]. The survey for Cohort 1 ran from the third week of January for two months. In November 2010, the same information and consent packs were sent out to schools (for parents and teachers) in preparation for the Cohort 2 data collection.

[13] These were Arabic, Bengali, Chinese (simplified and traditional), French, Guajarati, Polish, Somali and Urdu.

It was intended that as many teachers and parents as possible would do the surveys online, using a dedicated, password-protected website. If completion of an online survey was not possible, then it could be done on paper or over the telephone. Upon completion, the surveys were matched with information in the master database using Unique Pupil Numbers (UPNs).

The teacher and parent survey asked respondents to complete the wider outcome sub-scales as described in section 3.7.1. In addition, teachers and parents were asked to provide information about the child's primary need, level of SEND support, age, gender, date of birth and school year. Academic and attendance data were collected from schools at the end of the academic year in which each Cohort participated in the surveys (2009/10 for Cohort 1, and 2010/11 for Cohort 2). Additional data were collected from the sources mentioned in Table 8. Once all the data collection was complete, the datasets for RQ1 and RQ2 were compiled, with all identifying information removed and replaced with an ID number for each case.

3.8.2 Qualitative strand

The qualitative strand ran alongside the quantitative one. In October 2009 local authority leads were approached by the AfA researchers and asked to nominate schools that may be willing to take part in a case study. From the nominations, two schools were selected per LA to offer a representative sample of school types. The schools were sent full details of the case study (see Appendix 4). Once the schools had been recruited, lead teachers were asked to select and approach five families per school to participate in the Case Study. Information was given to parents, and consent was on a strictly opt-in basis, due to the additional demands of this strand of the research (see Appendix 4). Schools were encouraged to provide a range of children with SEND to participate in the Case Study.

In the summer term of 2010 the first wave of data was collected, the second wave was in autumn 2010, and the final one took place in the summer term of 2011. Semi-structured interviews were used, with interviews recorded and transcribed, and all identifying information removed. Upon completion of the *AfA* Case Study, background information and interviews relating to the five pupils meeting the criteria for inclusion in the current study (identification of ASD) were analysed.

3.9 Analytical strategy

3.9.1 Quantitative strand

Screening and initial exploration of data

Before analysis of the data was possible, it was necessary to complete a number of exploratory procedures in order to understand the nature of the datasets, their characteristics, and any factors that may have an undue impact on the findings. While there is no single agreed method of presenting either descriptive statistics or the results of data screening, a combination of the methods proposed in key texts on statistical approaches in psychology were used (e.g. Miles & Shelvin, 2009; Field, 2009; Pallant, 2010; Tabachnick & Fidell, 2007).

- **Screening:** the first stage in quantitative data analysis involved thorough screening and checking of the data to ensure that there were no anomalies, such as impossible scores. As recommended in Pallant (2010), this was done for all of the variables to be used in the quantitative datasets (RQ1 and RQ2). Categorical variables were checked for minimum and maximum values and also the number of missing and valid cases. Continuous variables were checked using the mean, standard deviation, minimum and maximum values.

- **Missing data analysis:** "Missing data is one of the most pervasive problems in data analysis" (Tabachnick & Fidell, 2007, p. 62). Yet despite the *APA Task Force on Statistical Inference* calling for its inclusion (Wilkinson, 1999), many studies still fail to report on it (Schlomer, Bauman, & Card, 2010). However, as noted by Tabachnick and Fidell (2007), it is not the amount of missing data that is of importance, but patterns within the data, which are not random and put the generalisability of findings at risk. There are three categories used to describe missing data: missing completely at random (MCAR); missing at random (MAR); and missing not at random (MNAR). While there are no definitive guidelines about the percentage of data that are MCAR or MAR that are acceptable, Tabachnick and Fidell (2007) suggest that ≤ 5% implies that there are likely to be fewer problems. Missing data can be tested in a number of ways, including the SPSS (IBM, 2012) missing value analysis that was used for this study (see Appendix 6).

- **Assumptions:** Assumptions specific to the final statistical analyses were scrutinised. Any violations of assumptions were considered, with the possible ramifications noted and acknowledged. As these assumptions are specific to the analyses, a more complete description is given in the consideration of individual RQs.

- **Descriptive statistics:** For categorical variables, frequencies per variable were examined to ascertain the ratio of response groups within variables (e.g. the ratio of males to females or the proportion of responses from different types of school). For continuous variables, the mean, standard deviation, range, skewness and kurtosis were explored, including tests of normality. Variables were examined for outliers and removed if deemed to have a disproportionate influence on the results.

3.9.2 Research Question 1

This RQ relates to the prevalence of being a victim of bullying (including frequency) and the role a child plays in it (victim or bully-victim). While the main focus was on children and young people with ASD, given that most research on the bullying of children with SEND does not distinguish between SEND-types, it was decided that comparison would be useful in assessing the relative levels for pupils with ASD. Therefore, before conducting the analyses, the pupils in the dataset for RQ1 were grouped according to the four areas of need, as set out in the SEN Code of Practice (DfES, 2001). The reason for arranging the 11 SEND categories into area of need is to avoid having very small numbers of pupils in some categories (e.g. Profound and Multiple Learning Difficulty [PMLD]). The categorisation of these groups is presented in Table 10.

Area of need	Category of SEND (DfES, 2005)
Cognition and learning needs	Specific learning difficulty (SpLD)
	Moderate learning difficulty (MLD)
	Severe learning difficulty (SLD)
	Profound and multiple learning difficulty (PMLD)
Behavioural, emotional and social development needs (BESD)	Behavioural, emotional and social difficulty (Besd)
Communication and interaction needs	Speech, language and communication needs (SLCN)
	Autism spectrum disorder (ASD)
Sensory and/or physical needs	Hearing impairment (HI)
	Visual impairment (VI)
	Multi-sensory impairment (MSI)
	Physical disability (PD)

Table 10: SEND categories organised according to areas of need

Assessing prevalence and victim role

Prevalence of being the victim of bullying was measured using three different methods and two types of report (teacher and parent). For all three methods, the findings for children and young people with ASD were compared to the four areas of SEND need, with ASD separated into a separate group for the purpose of comparison.

Methods of measurement were discussed in Literature Review (section 1.4.2), with their relative strengths and weaknesses. Despite an acknowledgement of the need for definition and measurement to be standardised (e.g. Swearer, Siebecker, et al., 2010), studies still use many variations of measurement type, and usually only use one form of measurement within a single study. Therefore, the decision was taken to use more than one method within the present study in order to examine the extent to which the findings could vary using the same dataset. These three methods, along with examples from the literature of where they have been used are presented in Table 11.

Measurement	Examples of studies using this method
Nomination	Victim vs. not bullied: Atria et al. (2007) Victim vs. bully-victim: Solberg, Olweus, and Endresen (2007)
Frequency of being bullied	Cappadocia et al. (2012) van Roekel et al. (2010)
Level of being bullied (mean score)	Analitis et al. (2009) (Used 1SD below mean in the analysis of factors associated with being bullied) Borntrager et al. (2009) (Mean used to establish single cut-point to classify a child as victim)

Table 11: Methods of measurement with examples of studies using them

The first method is a nomination method that relies upon respondents to identify the role of a child in bullying incidents. In the present study these were recoded into victim / not a victim as demonstrated in Table 12 below:

Role	Coding of role
Victim	Victim
Bully and victim	
Victim and bystander	
Victim, bully and bystander	
Bully	Not a victim
Bystander	
Not involved	

Table 12: Coding of victims of bullying and non-victims

The second method calls for the frequency of being bullied to be reported. In this study, it was divided into four responses according to increasing levels of frequency (*not involved, termly, weekly, daily*) among those children who were reported to be bullied. Strictly-speaking, this is not a measure of prevalence. Nevertheless, the decision was taken to include it here, as it adds to the picture of bullying in terms of different measurable levels of exposure.

The third method of measuring being the victim of bullying is potentially more contentious, as there is no agreement on what actually constitutes particular levels of bullying according to increasing mean scores on a scale. While there have been calls in the literature for an appropriate threshold to define a child who is being bullied, there have been no published attempts to subdivide bullying into different groups

according to an increase in mean score. Thus, the mean could be divided into a number of groups which could be equated to increasing levels of reported bullying.

It was not possible to divide pupils into equal groups, due to the number of pupils with a mean score of zero. Instead, the decision was taken to impose cut-points that divided pupils into 4 different categories: those with a mean score of zero, and the positive scores divided into three equal sections that could, for exploratory purposes, be classed as Low, Moderate and High exposure to bullying behaviour. While this may appear a crude approximation, it is nevertheless representative of pupils across four different categories according to mean score. As a consequence, the cut-points for the different levels were set as shown in Table 13.

Levels of being exposed to bullying	**Bullying mean**
Not a victim of bullying	0.000
Low level of exposure	0.001-1.000
Moderate level of exposure	1.001-2.000
High level of exposure	2.001-3.000 (max)

Table 13: Cut-points for measuring level of bullying

The assessment of bullying role was more straightforward. When teachers and parents nominated a child as a victim of bullying according to the options on the survey, the role was recoded into two categories of victim and bully-victim, as demonstrated in Table 14.

Role (survey options)	**Recoding of role**
Victim	Victim
Victim and bystander	
Bully and victim	Bully-victim
Victim, bully and bystander	

Table 14: How victims of bullying were recoded to assess role

The same analytical strategy was used to assess prevalence in RQ1a and role in RQ1b. Chi-square tests for independence were used for all models in order to establish whether they were statistically significant. Groups were compared using total numbers and percentages, and odds ratios were calculated in order to show the magnitude of identified group differences. Although the teacher and parent datasets

were analysed separately, their results were presented alongside one another, with comparisons drawn where appropriate.

3.9.3 Research Question 2

Multiple regression was chosen as the most suitable strategy for the analysis of RQ2 on risk and protection. This is because multiple regression is able to assess the importance of a number of different variables to predict an outcome (Field, 2009). Therefore, it is possible to explore the impact of a range of factors (for which there is a theoretical rationale for inclusion) on an outcome, such as bullying. A combination of categorical and continuous variables can be used as predictors, meaning that this is a versatile method.

The same datasets (teacher and parent) were used to evaluate RQ2a (models of risk and protection) and RQ2b (models of cumulative risk). Descriptive statistics, including means and standard deviations (for continuous variables) and frequencies (for categorical variables) were obtained and assessed. Following this, there was a thorough analysis of the assumptions for multiple regression. While violation of some of the assumptions is common in psychological research (e.g. Field, 2009; Tabachnick & Fidell, 2007), it is vital to identify any violations, explore the possible reasons for them, and also consider any potential impact on the interpretation of results. Violations do not invalidate the model, but they may weaken it (Field, 2009).

The assumptions that were included are described below (following the model given in Field, 2009):

- *Variables*: must be either continuous (quantitative) or categorical (with only two categories) and have some variance in value.
- *Multicollinearity*: this is to check that the IVs do not correlate too highly with one another. This may have an effect on the interpretation of the results, because if two variables are highly correlated, they may be measuring the same phenomenon. A bivariate correlation of > .7 would be considered a cause for concern (Pallant, 2010). There are additional tests for this in SPSS: Tolerance - which should be at least > .1and ideally > .2 (Menard, 1995) and

the Variance Inflation Factor - which should be < 10 (Myers, 1990) and preferably < 4 in more recent texts (Miles & Shelvin, 2009).

- *Homoscedasticity (homogeneity of variance)*: the spread of residuals[14] should be constant or similar for all values of the DV. This can be assessed by looking at a scatterplot of residuals (Tabachnick & Fidell, 2007).
- *Independence of errors*: residuals should not be correlated when comparing two separate observations. This can be examined via the Durbin-Watson test. As a general rule, values range from 0–4 with a statistic of 2 indicating that the residuals are likely to be uncorrelated,
- *Normally distributed errors*: these should follow a normal distribution with a mean of 0, even if the continuous predictors are not normally distributed. This can be seen in the mean and standard deviation of the residuals statistics and also graphically in a histogram of residuals.
- *Independence*: this implies that one data point should not have any influence on another one. In the context of this study, each value of the DV should not have any bearing on another one.
- *Linearity*: the relationship that is being modelled should be linear, with each value of the predictors lying along a straight line. This is the principle underpinning regression and can be seen in P-P Plots.

Categorical variables

It is a condition for multiple regression that no categorical variable has more than two categories. Therefore, it was necessary to create dummy variables with a reference group to which they can be compared (Field, 2009). This was required for two variables: year group and SEND provision. For year group, Years 5, 7, and 10 were compared to Y1 as the reference group, as initial analyses indicated that this year group had the lowest level of bullying compared to all other groups when analysed separately. For SEND provision, those with a statement became the reference group as it contained the largest number of cases (48.8%) and analyses also indicated that those with a statement had the lowest *bullying mean* score compared with those at SA and SAP.

[14] Residual values are the difference between the value predicted by the model and the actual observation used in the model.

Outliers

While consideration of outliers or extreme cases is not part of the assumptions of multiple regression, their presence can have an undue influence on the overall model, and if so, it may be judicious to remove them. There are a number of ways to identify outliers, the main ones being visual checking of scatterplots, cases with a standardised residual exceeding ± 3.29, and analysis of Mahalanobis and Cook's distances. There are no established criteria for the inclusion or exclusion of outliers, therefore each case should be considered in the context of its effect on the overall model.

Sample size calculations

An important consideration when conducting multiple regression is having an appropriate sample size (Field, 2009). There are a number of ways of calculating overall sample size needs, but it is preferable to be able to break this down into small, medium and large effect sizes. This can be done by conducting calculations for anticipated effect size using (Cohen, Cohen, West, & Aiken, 2003; Soper, 2012).

Dataset	**Sample**	**Variables**	**Sample size (power = .8) required for:**					
			Small effect (.02)		**Medium effect (.15)**		**Large effect (.35)**	
Alpha			0.1	.05	.01	.05	.01	.05
Teacher	722	15	1,284	950	185	139	89	68
Parent	119	17	1,343	997	194	146	94	72

Table 15: Sample size calculations according to Cohen (1992)

As can be seen in Table 15, the teacher model can detect medium effects and the parent one large effects, and this is true for probability levels of .01 and .05.

3.9.4 Interpretation of multiple regression

There is a great deal of output that is generated in multiple regression using SPSS (Field, 2009; Pallant, 2010). However, while this is of use in assessing the various properties of the model, certain key elements are of particular note. These are explained in more detail below:

- R^2 *and adjusted* R^2: R^2 is a value that indicates how much variance in the dependent variable (DV) can be explained by the model. By multiplying the value by 100 it can be expressed as a percentage. While this value can be used for large samples, adjusted R^2 is a more conservative estimate that is used for small samples. In this analysis adjusted R^2 is used for both the teacher and parent datasets in order to make results more easily comparable, especially as the parent dataset is considerably smaller than the teacher one.
- R^2 *change*: this statistic is an indicator of whether the change in R^2 is significant and is used when the regression has more than one level in the hierarchy (as in the case for the assessment of linear or exponential model fit for cumulative risk in section 4.7.
- *ANOVA*: this test is used to assess the significance of the model compared with use of the mean as a "best guess" (Field, 2009). The *F*-ratio demonstrates the improved accuracy of the model compared with any remaining inaccuracy within it, with a large F-ratio indicating better model fit. $p < .05$ is used to indicate that the model is statistically significant.
- *Coefficients*: there are two coefficient values given, the first being the raw coefficient that is the unstandardized β. This shows the strength of the correlation between an independent variable (IV) and the DV, representing the change in the DV measured by a unit of change in the IV (e.g. as the value of variable A changes by *x*, so the *bullying mean* score goes up by *y*). However, this does not allow comparison between the IVs, as they are using different units of measurement. The standardised Beta allows comparison of the predictors to the overall model if statistically significant ($p < .05$).

Standard multiple regression using forced entry was used for RQ2a, as there was a theoretical rationale for the inclusion of all the variables based on the research literature. While the teacher and parent models are reported separately, the findings from the two models are also explored for convergence.

The same datasets were used for RQ2b, but some new variables were added. For the cumulative risk models in RQ2b recoded variables were created for each of the significant predictors found in RQ2a. These variables were recoded as binary variables to indicate whether the risk was present or not. In the case of continuous

variables, the highest or lowest 25% of scores were taken to indicate risk (Lima et al., 2010). Following this, a total risk variable was calculated to represent an individual case score for risk. Frequencies and the percentage of cases at each level of risk were calculated, followed by an analysis of differences in the *bullying mean* score as the number of risks increased. A regression analysis was applied to establish whether the cumulative risk score showed an association with the *bullying mean*.

Further to this, and to investigate whether the relationship between risk and bullying showed a linear or exponential relationship, a hierarchical regression model with two levels was run. A new variable was created to assess whether the relationship was exponential, which involved squaring the original *cumulative risk* score[15] (Appleyard et al., 2005). The first level of the model with the *cumulative risk* variable was conducted to assess fit. Following this, a second level was added including *cumulative risk squared* as an extra variable. If the model fit is significant and improved with the squared variable, then it can be concluded that the increase in risk is quadratic and therefore exponential (ibid.). As this analysis was a test of interaction, it was necessary to centre the variables in order to avoid the risk of multicollinearity (Aiken & West, 1991; Tabachnick & Fidell, 2007). As the analyses in this sub-question are shorter than those in RQ2a, the teacher and parent results are presented alongside each other, with similarities and differences noted.

3.9.5 Qualitative strand

Thematic analysis (TA) was adopted as the most suitable approach for the analysis of the interview data in the qualitative strand, as "it offers an accessible and theoretically flexible approach to analysing qualitative data" (Braun & Clarke, 2006, p. 77). As this study has been conducted from a pragmatic perspective, this approach is ideal due to its inherent flexibility and the way in which practical investigation is prioritised over and above the more rigid prerequisites and assumptions of some other perspectives (e.g. post-positivism). While TA has been criticised for not being a *proper* method, for being overly flexible, and for lacking the rigour of other approaches to data analysis (ibid.), others believe that its strengths lie in these

[15] A squared term allows an evaluation of whether the slope is quadratic in nature (as opposed to linear), i.e. as *x* goes up by 1, so *y* goes up by 2 (rather than by 1 in a linear relationship).

apparent criticisms, in that TA is adaptable and can be precisely tailored to suit the needs of qualitative research questions, thus avoiding the *methodolatry* of being more dedicated to a method than to the actual research question (Janesick, 2000). Due to the embedded design of this study, the questions asked in the interviews were guided to a large extent by the variables explored in the quantitative strand, making the analysis largely deductive. However, thematic analysis also allows an inductive approach, meaning that unanticipated themes may also be acknowledged and explored. Braun and Clarke (2006) believe that TA should be considered a method in its own right and propose a framework containing 6 phases, followed by a 15-point checklist (see Appendix 5) to ensure quality and rigour of analysis. This is the framework adopted in this strand.

The six phases that were followed were:

1. **Familiarisation with the data**: Interviews were transcribed professionally, so the initial stage of the analysis involved reading the interviews at least twice to become familiar with the content of the interviews. Notes about possible codes were noted long-hand at this stage. At this point the interviews were uploaded to Nvivo 10 (QSR, 2012).
2. **Generating initial codes**: This stage involved some re-reading of previous interviews in an iterative process that allowed development of initial codes and an idea of what some of the early grouping themes may involve. The initial codes were created as tree nodes in the software.
3. **Searching for themes:** This involved scrutinising the long list of codes and searching for links between them. Codes were drawn together under very broad topic headings (e.g. Behaviour), with codes grouped into broad categories. A *miscellaneous* theme was created for codes that were of interest but which did not appear to fit within the candidate themes.
4. **Reviewing themes**: The emergent themes were reviewed progressively, and some changes were made. This was aided by drawing diagrams and looking at the relationship between themes. Checks were made following Patton's (2002) guidelines for achieving internal homogeneity and external heterogeneity, i.e. to maximise internal coherence within themes and avoid excessive overlap across them.

5. **Defining and naming themes**: The themes and their sub-themes were examined closely to ensure that they were truly representative of their contents, and also that the contents represented the essence of the themes. Final names were decided for the themes. Detailed notes were made about how each theme could be said to tell its own story and also how they would link together to form a narrative whole.
6. **Producing the report**: The findings were written up in the Qualitative Results chapter, with the inclusion of vivid extracts to illustrate the analysis, and ensuring that the reporting of the results advanced beyond simple description.

3.10 Ethical considerations

Ethical approval was approved for the current study as part of the ethical approval for the *AfA Evaluation Study* granted by the University of Manchester Ethics Committee (reference number 09226) in September 2009. The application followed best practice guidance from the British Psychological Society's *Code of Ethics and Conduct* (BPS, 2006), *Ethical Principles for Conducting Research with Human Participants* (BPS, 2005), and *Revised Ethical Guidelines for Educational Research* (BERA, 2004)[16]. Ethical considerations are a key consideration for all research and also ensure that studies are carried out with integrity and respect for participants (Mertens, 2005). This is of particular significance when working with children and young people (Christensen & Prout, 2002). An overview of how ethical considerations were ensured in this study according to ethical guidelines is presented below.

Informed consent

Information and consent packs were sent out to all teachers and parents involved in the study. To ensure that parents were able to make a fully-informed decision about participation, all information was available in nine additional languages as well as English. In the quantitative strand the consent was on an opt-out basis, while in the qualitative strand it was on an opt-in basis, due to the more complex and intrusive nature of the research. Parents gave consent for their children to participate in the interviews. However, in all cases consent was re-confirmed prior to every interview, and the right to withdraw at any time without the need to provide a reason was reiterated on every visit. As the interviews were recorded, it was also verified on each occasion that the participant agreed for this to happen. It was made clear from the outset that no incentives could be given for participating in the research.

Confidentiality and anonymity

As participants were required to divulge personal information, it was essential to reassure them that all information would be treated confidentially. The only exception to this would be if any information was disclosed that was likely to indicate that there were child protection issues. Participants in the qualitative strand were informed that all identifying information would be anonymised.

[16] These publications have all been updated since the application for ethical approval in 2009. Nevertheless, the principles remain similar.

Protection of participants

It is essential that any risk of harm should be kept to a minimum. However, it is possible that in the quantitative phase teachers were put under undue pressure to complete surveys, as the schools were funded for their participation. This was anticipated and addressed as far as possible by offering the opportunity for teachers to contact the research team directly if they did not wish to participate, and giving assurances of confidentiality and anonymity of their responses. In the qualitative strand, pupils had a teacher present or nearby when interviews were taking place. It was agreed within the research team that if any participant became upset, the interview would be stopped immediately.

Debriefing

In the quantitative strand, schools and parents were fully informed of the research aims of the *AfA* evaluation, and feedback was available by means of the interim and final reports that are publicly available and which were also sent to schools (Humphrey et al., 2010; Humphrey et al., 2011). In the qualitative strand, additional information sent to schools and parents ensured that they were aware of the aims of the research and what it would entail. This information was also given to pupils verbally by the researchers who checked that the child understood. At the end of the interviews all participants were thanked and asked if they had any further questions.

Storage of data

All data were stored in password-protected files on the university computer system. No one other than the principal members of the research team had access to them. Recorded interviews were sent for transcription using a secure courier service and the original recordings were deleted as soon as the researcher had uploaded the files. Paper copies of surveys were stored in filing cabinets in locked offices.

3.11 Summary statements

This section provides an overview of the nine main sections of the chapter:

- **Epistemology and pragmatism**: the need for a sound epistemological foundation for the research was explained, followed by a justification of the choice of a pragmatic perspective that includes MMR.

- **Quality**: this section explored the complex issue of how to ensure that MMR is conducted in a way that can preserve the quality and integrity of methods originating from traditionally opposed paradigms.

- **Context**: the context of the current study was situated within that of the University of Manchester's evaluation of *AfA*. Despite drawing its data from this larger piece of research, the independence of the current study was clarified.

- **Design**: the study employed an embedded QUAN(*qual*) design, which meant that although a larger portion of it was quantitative in nature, there was a supplemental qualitative strand aimed at enriching the overall study.

- **Participants**: characteristics of the QUAN and *qual* samples were provided in this section, along with information about recruitment, inclusion criteria, and comparisons with national averages for the quantitative datasets.

- **Materials**: details were given of the *WOST* and *WOSP* surveys (including information about psychometric properties), and the interviews used in the qualitative strand.

- **Procedure**: this section provided information about the collection of large-scale survey data and contextual data. There was an explanation of how interviews with participats were organised and conducted.

- **Analytical strategy**: descriptions were given regarding the statistical analyses that were conducted (descriptive and inferential), followed by an explanation of the thematic analysis of the qualitative interviews.

- **Ethical considerations**: ethical issues were explored in this final section, with an explanation of how the current study met the ethical requirements.

CHAPTER 4: QUANTITATIVE RESULTS

4.1 Introduction to the chapter

In this chapter the main findings of the study are presented. As recommended in the literature on exploring data (e.g. Field, 2009; Pallant, 2010), prior to running analyses datasets were screened and descriptive statistics explored, including a consideration of missing data (see Appendix 6).

As bullying of children and young people with ASD is being examined by means of three main research questions - the first two pertaining to quantitative data and the final one qualitative data – each question is considered separately initially, with convergence of findings explored in the Discussion.

In the case of RQ1 and RQ2, the datasets used are specific to each question[17], therefore they are considered separately. In the final section the question relating to qualitative data is addressed in the light of the quantitative findings. Other issues that emerge from the qualitative data that are distinct from quantitative findings are also explored, especially with respect to the different perspectives that can be understood from key stakeholders.

The chapter concludes with a summary of findings before the qualitative results are presented in the next chapter.

[17] Specifically, RQ1 makes use of the entire *AfA* dataset for comparisons of prevalence across the SEND areas of need, while RQ2 uses a dataset comprising solely those identified as having ASD.

4.2 Research question 1: Prevalence of bullying and victim role

4.2.1 Introduction

The aim of this section is to answer RQ1 with regard to the prevalence of being a victim of bullying. As discussed in the literature review, there is a very broad range of estimates, both in the general bullying literature and in ASD literature, and this disparity is likely to be due to different ways of measuring it. In response to this, prevalence is assessed using three different methods to establish the extent to which it varies within one study. In addition, the role of the victim is explored in order to understand the proportion of those young people who are victims and bully-victims. For this question, data are taken from the whole *AfA* dataset. To allow for comparison of teacher and parent-reports of prevalence of being bullied and victim role, results are presented alongside one another where possible.

Thus, there are two sub-research questions:

a) What is the prevalence of bullying of children and young people with ASD according to teacher and parent-reports?
    i. How does prevalence vary according to the measurement used?
    ii. How does this compare to the broader SEND population?
    iii. What is the rate of concordance between teacher and parent-reports of bullying for children and young people with ASD?

b) Of those children and young people with ASD who are reported by teachers and parents to be bullied, what is the ratio of victims to bully-victims?
    i. How does this compare to the broader SEND population?
    ii. What is the rate of concordance between teacher and parent-reports of victim status (victim or bully-victim) for children and young people with ASD?

4.3 RQ1a: Prevalence

4.3.1 Datasets

From the original datasets, teacher and parent datasets were finalised using the following criteria:

- Teacher nomination of a SEND category
- At least one bullying section completed by teacher/parent on the survey (mean score on the bully scale, role nomination, or frequency nomination)

Any surveys that did not have this minimum level of information were excluded as there was no usable data.

- From the maximum possible sample of 17,042 teachers surveys, 15,699 were valid for the teacher dataset
- From the maximum possible sample of 3,074 parent surveys, 2,380 were valid for the parent dataset

4.3.2 Nomination as a victim of bullying

The teacher and parent datasets were analysed for being bullied/not bullied according to area of need, and with ASD separated out as a distinct group (as is the case for all subsequent analyses in RQ1). The results are presented in Tables 16 and 17.

TEACHER DATASET					
Area of need	**Not bullied**		**Bullied**		**Total**
	N	%	N	%	N
ASD	**522**	**72.1%**	**202**	**27.9%**	**724**
Cognition and learning	7094	80.3%	1741	19.7%	8835
BESD	2086	70.5%	874	29.5%	2960
Communication and interaction (excl. ASD)	1472	83.1%	299	16.9%	1171
Sensory and/or physical	559	81.5%	127	18.5%	686
Total (ave %)	11733	78.3%	3243	21.7%	14976

Table 16: Children reported as not bullied and bullied according to teacher-report

PARENT DATASET					
Area of need	**Not bullied**		**Bullied**		**Total**
	N	%	N	%	N
ASD	**76**	**56.7%**	**58**	**43.3%**	**134**
Cognition and learning	902	71.9%	352	28.1%	1254
BESD	174	54.9%	143	45.1%	317
Communication and interaction (excl. ASD)	268	77.9%	76	22.1%	344
Sensory and/or physical	76	66.1%	39	33.9%	115
Total (ave %)	1496	69.1%	668	30.9%	2164

Table 17: Children reported as not bullied and bullied according to parent-report

In the teacher dataset, a Chi-square test for independence indicated a significant association between area of need and whether a pupil was bullied or not, χ^2 (4, n = 14,976) = 1.723, $p < .001$, Cramer's V = .107. Above average prevalence levels of being bullied were reported for children with ASD who had an odds-ratio of 1.70 times the SEND average for being bullied. When comparing areas of need, those with ASD had the second highest prevalence levels after children with BESD.

In the parent dataset, the Chi-square test was also significant, χ^2 (4, n = 2,164) = 57.324, $p < .001$, Cramer's V = .163. Parents across all areas of need reported much higher prevalence levels than teachers, and the difference was at its most pronounced for those in the ASD (15.4%), Sensory and/or Physical (15.4%) and BESD (15.6%) categories. However, the odds-ratio for children being bullied compared with the SEND average was 1.69 and very similar to the teacher one.

Thus, when using the nomination method, prevalence of bullying of children and young people with ASD varied from 27.9% to 43.3% according to the response-type, although in both cases, these levels were above average compared with other children with SEND.

4.3.3 Frequency (if nominated as a victim)

If a child was nominated as a victim of bullying[18], it was possible to calculate the frequency of incidents on a termly, weekly and daily basis, according to the responses available in the surveys. The results are presented in Tables 18 and 19.

TEACHER DATASET							
Area of need	**Termly**		**Weekly**		**Daily**		**Total**
	N	%	N	%	N	%	N
ASD	**105**	**55.9%**	**64**	**34.0 %**	**19**	**10.1 %**	**188**
Cognition and learning	1076	66.0%	459	28.2%	95	5.8%	1630
BESD	412	50.3%	296	36.1%	111	13.6 %	819
Communication and interaction (excl. ASD)	169	61.9%	86	31.5%	18	6.6%	273
Sensory and/or physical	95	81.2%	20	17.1%	2	1.7%	117
Total (ave %)	1857	61.3%	925	30.6%	245	8.1%	3027

Table 18: Frequency with which children are reported as being bullied according to teacher-report

[18] Only children who were nominated in the survey as victims of bullying could be included in this analysis, as the frequency question refers to those who bully as well as victims of bullying.

PARENT DATASET							
Area of need	**Termly**		**Weekly**		**Daily**		**Total**
	N	%	N	%	N	%	N
ASD	**27**	**49.1%**	**21**	**38.2%**	**7**	**12.7%**	**55**
Cognition and learning	184	60.5%	83	27.3%	37	12.2%	304
BESD	55	44.7%	50	40.7%	18	14.6%	123
Communication and interaction (excl. ASD)	35	53.0%	25	37.9%	6	9.1%	66
Sensory and/or physical	26	78.8%	7	21.2%	0	0.0%	33
Total (ave %)	327	56.3%	186	32.0%	68	11.7%	581

Table 19: Frequency with which children are reported as being bullied according to parent-report

This analysis presents a more complex picture than the previous one. However, the Chi-square test indicated a significant association between area of need and frequency of bullying, χ^2 (8, n = 4,608) = 2.101, $p < .001$, Cramer's V = .151. In the teacher dataset, there was a decrease in prevalence as the frequency of bullying increased which was apparent across all areas of need. Children with ASD were below the SEND average for termly bullying, but above it for weekly bullying and daily bullying, and second only to those with BESD for these two frequencies. An odds-ratio calculation showed that children with ASD were 1.25 times more likely to be bullied weekly or daily as opposed to termly compared with the SEND average.

A similar pattern emerged in the parent dataset, with a significant Chi-square test, χ^2 (8, n = 688) = 18.058, $p = .021$, Cramer's V = .115. Nevertheless, there was less of a discrepancy between the SEND average and the ASD percentage for bullying on a daily basis (and a greater discrepancy for weekly bullying) than was apparent in the teacher dataset. The odds-ratio calculation revealed that children with ASD were 1.34 times more likely to be bullied weekly or daily (rather than termly) as compared to the SEND average.

These findings suggest that of those children who are bullied, those with ASD tend to be exposed to more frequent episodes of bullying, and this was apparent to a greater extent in parent-reports.

4.3.4 Level of bullying (using cut-points)

Exposure to bullying was assessed using the *bullying mean* score generated by completion of the bullying scale in the surveys. A separate category was created for those with a mean score of 0, followed by three categories that could be equated to Low, Moderate and High prevalence of bullying[19]. The results are presented in Tables 20 and 21 below:

TEACHER DATASET									
Area of need	**0 score**		**Low**		**Moderate**		**High**		**Total**
	N	%	N	%	N	%	N	%	N
ASD	**251**	**34.6%**	**312**	**43.0%**	**136**	**18.8%**	**26**	**3.6%**	**725**
Cognition and learning	3544	40.0%	3908	44.2%	1258	14.2%	139	1.6%	2959
BESD	658	22.2%	1243	42.0%	917	31.0%	141	4.8%	1786
Communication and interaction (excl. ASD)	673	37.7%	838	46.9%	253	14.2%	22	1.2%	681
Sensory and/or physical	313	46.0%	291	42.7%	74	10.9%	3	0.4%	725
Total (ave %)	4359	36.3%	6592	43.9%	2638	17.6%	331	2.2%	15000

Table 20: Levels of bullying according to teacher-report

[19] This 0, low, moderate and high range relates to the Likert response format of *never, rarely, sometimes, often* in the surveys for teachers and parents.

PARENT DATASET									
Area of need	**0 score**		**Low**		**Moderate**		**High**		**Total**
	N	%	N	%	N	%	N	%	N
ASD	**27**	**22.3%**	**43**	**35.5%**	**35**	**28.9%**	**16**	**13.2%**	**121**
Cognition and learning	381	30.5%	600	48.1%	231	18.5%	36	2.9%	1248
BESD	68	20.5%	142	42.8%	93	28.0%	29	8.7%	332
Communication and interaction (excl. ASD)	108	32.1%	171	50.9%	53	15.8%	4	1.2%	336
Sensory and/or physical	21	18.9%	63	56.8%	24	21.6%	3	2.7%	111
Total (ave %)	605	28.2%	1019	47.4%	436	20.3%	88	4.1%	2148

Table 21: Levels of bullying according to parent-report

A Chi-square test indicated a significant association between area of need and level of bullying, χ^2 (12, n = 15,000) = 7.382, $p < .001$, Cramer's V = .128. In the teacher dataset 65.4% of pupils with ASD had a mean score above 0 on the bullying scale (compared with 63.7% for the SEND average). In the ASD group those with a mean score of 0 and Low prevalence were just below the SEND average, while Moderate and High prevalence were above average (and second only to BESD). An odds-ratio calculation revealed that those with ASD were only 1.06 times more likely to be bullied at Moderate and High levels than their SEND counterparts. However, this ratio increased to 2 when comparing High levels of bullying (as opposed to 0, Low and Moderate levels).

In the parent dataset, the Chi-square test was also significant, χ^2 (12, n = 2,148) = 97.867, $p < .001$, Cramer's V = .123. 77.7% of children with ASD had a mean score above 0 on the bullying scale (compared with 71.8% for the SEND average). The results were also more disparate for the ASD group compared with the SEND averages: a mean score of 0 and Low prevalence were considerably below the SEND average, while Moderate and High prevalence levels exceeded it by a high margin (with an associated odds-ratio of 2.28 when comparing moderate and high levels with 0 and low ones). This ratio rose to 3.73 when comparing High levels of bullying

with the SEND average (versus 0, Low and Medium levels). Indeed, the ASD group were found to have the greatest exposure to Moderate and High prevalence levels across all areas of need.

In terms of convergence between the teacher and parent responses, the differences are clear to see for those with ASD, with parents reporting decreased 0 scores and Low prevalence levels, but increased Moderate and High levels of prevalence. This suggests a lack of convergence in opinion over prevalence levels of bullying when using this method of assessment.

4.4 RQ1b: Victim role

In the second part of this RQ the role of the victim was examined. As discussed in the Literature Review, the ratio of bully-victims to victims has little research to date, although existing findings suggest that bully-victims are a minority group in the general population. Behaviour problems are often present for children with ASD, and so it is timely to consider whether the proportion of victims and bully-victims in this particular group. The results of the analysis are presented in Tables 22 and 23.

TEACHER DATASET					
Area of need	**Victim**		**Bully-victim**		**Total**
	N	%	N	%	N
ASD	**114**	**56.4%**	**88**	**43.6%**	**202**
Cognition and learning	817	46.9%	924	53.1%	1741
BESD	228	26.1%	646	73.9%	874
Communication and interaction (excl. ASD)	178	59.5%	121	40.5%	299
Sensory and/or physical	82	64.6%	45	35.4%	127
Total (ave %)	1419	43.8%	1824	56.2%	3243

Table 22: Children reported as victims and bully-victims according to teacher-report

PARENT DATASET					
Area of need	**Victim**		**Bully-victim**		**Total**
	N	%	N	%	N
ASD	**46**	**79.3%**	**12**	**20.7%**	**58**
Cognition and learning	267	75.9%	85	24.1%	352
BESD	55	38.5%	88	61.5%	143
Communication and interaction (excl. ASD)	65	85.5%	11	14.5%	76
Sensory and/or physical	35	89.7%	4	10.3%	39
Total (ave %)	468	70.1%	200	29.9%	668

Table 23: Children reported as victims and bully-victims according to parent-report

A Chi-square test indicated a significant association between area of need and victim/bully-victim status, χ^2 (4, n = 3,243) = 1.838, $p < .001$, Cramer's V = .238.

Teachers reported that just over half of pupils with ASD who were bullied were victims rather than bully-victims with an associated odds-ratio of 1.30, whereas the odds-ratio for the SEND average was 0.78. Overall, children with ASD were 1.67 times more likely to be victims (rather than bully-victims) compared with the SEND average. This trend is likely to be strongly influenced by the high proportion of bully-victims in the BESD group.

The Chi-square test was also significant for the parent dataset, χ^2 (4, n = 668) = 91.935, $p < .001$, Cramer's V = .371. The findings from the parent dataset are in stark contrast to the teacher one, with 79.3% of children with ASD reported as victims (with an associated odds-ratio of 3.83) compared with the SEND average of 70.1% (with an odds-ratio of 2.34). When compared, children with ASD were 1.64 times more likely to be victims of bullying (as opposed to bully-victims) compared with the SEND average. This suggests that parents of children in all areas of need are less likely to report their children as being bully-victims and more likely therefore to consider them victims.

4.5 Summary statements – RQ1

- Chi-square tests were significant for all analyses in this section, indicating a significant association between areas of need and the type of prevalence measured.

- When using a nomination method, prevalence levels were above the SEND average, ranging from 27.9% (teacher-report) to 43.3% (parent-report).

- In terms of frequency, those children with ASD who were reported to be bullied were more likely to be exposed to it on a weekly (34.0%) and daily (10.1%) basis compared with the SEND average in the teacher-report, with the same true in the parent-report (38.2% and 12.7% respectively).

- When assessing the bullying scale, the number of young people reported as having a score above zero ranged from 65.4% (teacher-report) to 77.7% (parent-report).

- Children with ASD were below the SEND average for 0 (34.6%) and Low levels (43.0%) of bullying, but above average for Moderate (18.8%) and High (3.6%) levels in the teacher-report. The same was true for parent-report (22.3%, 35.5%, 28.9% and 13.2% respectively).

- In each of the prevalence analyses, parents of children with ASD reported higher rates of more serious bullying than teachers.

- Teachers reported that 56.4% of pupils with ASD who were bullied were victims rather than bully-victims. Parents reported 79.3% of pupils as victims. In both cases these figures were below the SEND average.

4.6 Research question 2: Risk and protection

4.6.1 Introduction

This section explores the question of factors that contribute to higher and lower levels of being bullied in children and young people with ASD, specifically:

a) Factors associated with increased (risk) or decreased (protective) levels of bullying of children and young people with ASD:
    i. What are the risk/protective factors according to teacher-report?
    ii. What are the risk/protective factors according to parent-report?
    iii. What is the rate of concordance between teacher and parent-reports of risk/protective factors for bullying?

b) Cumulative risk according to teacher and parent-report:
    i. Is the risk of being bullied predicted by a cumulative increase in risk factors?
    ii. What is the relationship between the number of risk factors and the risk of being bullied?

In light of the on-going debate over the precise definition of risk and protection, the variables analysed in this section are deemed to be opposites. In the case of dichotomous categorical variables (e.g. *gender*, *FSM eligibility*) this is a straightforward and logical argument. This is less clear-cut in the case of continuous variables (e.g. *behaviour mean* and *positive relationships mean*), as opposite ends of the scale may not be comparable. Nonetheless, a review of the literature indicated that this approach is the most commonly used in the field, and as such was adopted in the current study.

4.6.2 RQ2a Risk and protection: teacher data

Descriptive statistics

Once the data had been checked and a missing data analysis conducted (see Appendix 6), descriptive statistics for the 15 predictor variables and the DV were obtained. Frequencies and range for all categorical variables are in Appendix 7, with the addition of the mean, standard deviation, skew and kurtosis also presented for the continuous variables. Descriptive statistics for the DV are shown in Table 24.

Descriptive statistics					
	N	Mean	Std. deviation	Skew	Kurtosis
Bullying mean	722	.592	.661	1.055	.316

Table 24: Descriptive statistics for the DV in the teacher dataset

It can be seen from the skewness and kurtosis that the distribution for *bullying mean* is positively skewed (with teachers reporting that most pupils have low scores for this variable, with 34.6% having a mean score of 0.00). It is common in the social sciences for scales to have non-normal distributions (Humphrey et al., 2011). Transformation was considered but ultimately rejected in light of the inherent limitations (e.g. reduced interpretability) (Field, 2009; Glass, Peckham, & Sanders, 1972; Tabachnick & Fidell, 2007).

Bivariate correlations with the DV were also assessed to see whether there appeared to be a relationship prior to the multiple regression analysis, and also to examine its strength. While continuous variables were assessed using the bivariate correlation function in SPSS, categorical variables were calculated using point biserial correlation function that is computed in as part of the SPSS bivariate correlation. The results are shown in Table 25.

	Bullying mean	
Predictor variables	**Correlation**	**Sig. (1-tailed)**
Behaviour mean	.567	< .001
Positive relationships mean	-.320	< .001
Gender (male / female)	-.052	.082
FSM eligibility (no / yes)	.020	.293
Ethnicity (white / other)	-.123	< .001
School type (mainstream / special)	-.212	< .001
Use of public/school transport (no/yes)	.044	.123
Year 5 (compared to Y1)	.093	.006
Year 7 (compared to Y1)	.070	.030
Year 10 (compared to Y1)	.038	.152
SA (compared to ST)	.011	.383
SAP (compared to ST)	.124	< .001
Academic achievement	.131	< .001
Attendance	-.068	.049
School urbanicity (urban/rural)	.103	.003

Table 25: Bivariate correlations of IVs with the DV - teacher dataset

The strongest statistically significant relationship was found between the *bullying mean* and the *behaviour mean*, followed by *positive relationships, school type, academic achievement, SAP, ethnicity, urbanicity, being in Y5 or Y7*, and *attendance*. A number of variables did not have a statistically significant bivariate correlation with the DV (*gender, FSM eligibility, use of public/school transport, Y10* and being at *SA*). However, as this is an exploratory study, and there is a theoretical justification for inclusion of these variables, it was decided to retain them in order to assess whether they had an effect on the model.

Assumptions for multiple regression

The teacher dataset was examined for the assumptions of multiple regression and the results are presented in Table 26.

Assumption	Met?	Value	Observations
Continuous or categorical variables	✓	See table 8	All predictor variables and the DV are either continuous or categorical
Non-zero variance of predictors	✓	See table 8	All predictor variables have some variance in value
Multicollinearity (should not be perfect)	✓	Tolerance range = .564-.973 VIF range = 1.028-1.772	Tolerance and VIF are within acceptable ranges for all predictor variables (Miles & Shelvin, Menard, 1995; 2009; Myers, 1990)
Homoscedasticity	X	See residuals scatter plot in Appendix 8	Residuals scatter plot is not rectangularly distributed, but the violation is likely due to floor effects discussed in Section 4.6.3
Independence of errors	✓	Durbin-Watson value = 1.992	The range for the Durbin-Watson test is 0-4, with 2 considered the optimum value. The value is very close to 2 and therefore acceptable
Normally distributed errors	✓	Standardised residual – mean = .021, standard deviation = 1.038.	Standardised residual should be close to 0 and can be examined in the histogram in Appendix 8, which shows a normal distribution
Linearity	✓	See Appendix 8	Expected compared with observed values have a linear trend as demonstrated in the Normal P-P Plot of regression standardised residual

Table 26: Assumptions for multiple regression in the teacher dataset

Outliers: the presence of extreme outliers and influential cases was explored first of all by visual inspection of the scatter plot of regression standardised residuals and standardised predicted values. Two extreme outliers were removed at this point. An examination of Mahalanobis distances revealed a further extreme case which was also removed with a value of 89.207, when the advised critical maximum χ^2 value is 37.697 ($p \leq .001$) (Tabachnick & Fidell, 2007, Table C4). As the final dataset was

still large (722 cases), marginal outliers in terms of standardised residuals and Mahalanobis distances were retained, as they did not have an undue influence on the model (Pallant, 2010).

Multiple regression analysis

In order to assess the ability of key variables identified in the literature to predict bullying of children and young people with ASD, a multiple regression analysis was carried out using SPSS Regression on the 15 variables identified in Section 3.7. As there was a theoretical justification for including these variables, the Enter method was used, in which all variables were entered simultaneously.

The model was statistically significant: $F(15, 506) = 27.617$, $p < .001$, explaining 43% of variance (Adjusted $R^2 = .434$). Coefficients are presented in Table 27 below:

Model	**Unstandardised coefficients**		**Standardised coefficients**	
Variable	***β***	**Std. Error**	**Beta**	**Sig.**
Constant	.577	.269		.033
Behaviour mean	.451	.035	.485	< .001
Positive relationships mean	-.204	.044	-.179	< .001
Gender (male/female)	-.046	.063	-.024	.471
FSM eligibility (no/yes)	.020	.052	.013	.707
Ethnicity (white/other)	-.067	.064	-.037	.295
School type (mainstream/special)	-.329	.073	-.194	< .001
Use of public/school transport (no/yes)	.128	.061	.075	.037
Year 5 (compared to Year 1)	.304	.061	.220	< .001
Year 7 (compared to Year 1)	.383	.066	.247	< .001
Year 10 (compared to Year 1)	.350	.073	.203	< .001
SA (compared to statement)	.114	.081	.052	.162
SAP (compared to statement)	.056	.053	.042	.291
Academic achievement	-.003	.002	-.047	.166
Attendance	.039	.026	.058	.142
School urbanicity (urban/rural)	.124	.078	.055	.112

Table 27: Multiple regression coefficients of the teacher dataset

From the 15 predictors simultaneously entered into the model, 7 were statistically significant: 2 continuous and 5 categorical variables. The value of the standardised Beta coefficient relative to other significant variables indicates the strength of the effect when other variables are controlled for. The interpretation of this can be seen in Table 28.

Variable	**Std. Beta**	**Sig.**	**Interpretation**
Behaviour mean	.485	< .001	As the behaviour mean increases by 1SD (.710), so the bullying mean increases by .321[20]
Year 7 (compared to Year 1)	.247	< .001	If a pupil is in Y7, so the bullying mean increases by .163
Year 5 (compared to Year 1)	.220	< .001	If a pupil is in Y5, so the bullying mean increases by .145
Year 10 (compared to Year 1)	.203	< .001	If a pupil is in Y10, so the bullying mean increases by .134
Type of school (mainstream /special)	-.194	< .001	If a pupil attends a special school (compared to a mainstream school), so the bullying mean decreases by .128
Positive relationships mean	-.179	< .001	As the positive relationships mean increases by 1SD (.580), so the bullying mean decreases by .118
Use of public/school transport (no/yes)	.075	.037	If a pupil uses public/school transport to get to school, so the bullying mean increases by .050

Table 28: Standardised coefficients for the significant variables in the teacher dataset in rank order

It can be seen that *behaviour mean* was the strongest predictor for risk of being bullied. Being in *Year 7* is the next strongest, closely followed by the standardised coefficients for *Year 5* and then *Y10*, all of which were assessed in relation to Year 1 as the reference group. *School type* followed in order of magnitude, with *positive relationships mean* in sixth position. These latter two variables had a negative correlation with the DV that is due to the coding (i.e. mainstream school attendance was coded as 0 and special school attendance was coded as 1; a *higher positive relationships mean* is associated with a decreased *bullying mean*, with a lower

[20] This figure is calculated by multiplying the standardised Beta for behaviour by the standard deviation of the teacher *bullying mean* (.485 x .661 = .287).

positive relationships mean associated with a higher *bullying mean*). The weakest significant predictor was use of *public/school transport*.

4.6.3 RQ2a Risk and protection: parent data

Descriptive statistics

Once the data had been checked for errors and a missing data analysis conducted (see Appendix 6), descriptive statistics for all of the 17 predictor variables and the DV were obtained (Appendix 7). The mean and standard deviation for the DV are presented below in table 29. As in the case of the teacher dataset, the distribution was non-normal, with positive skew and negative kurtosis. 22.3% of the sample had a *bullying mean* score of 0.00, demonstrating floor effects. Transformation of the variable was not undertaken (see section 4.6.2 for more information).

	N	Mean	Std. dev.	Skew	Kurtosis
Bullying mean	119	.947	.835	.472	-1.008

Table 29: Descriptive statistics for the DV in the parent dataset

Bivariate correlations with the *bullying mean* were also carried out and can be seen in Table 30.

	Bullying mean	
Predictor variables	Correlation	Sig.
Behaviour mean	.422	< .001
Positive relationships mean	-.321	< .001
Parental engagement and confidence mean	-.394	< .001
Wider participation mean	-.302	.001
Gender (male/female)	.010	.456
FSM eligibility (no/yes)	.107	.123
Ethnicity (white/other)	-.237	.005
School type (mainstream/special)	-.137	.069
Use of public transport (no/yes)	-.038	.341
Year 5 (compared to Year 1)	.171	.031
Year 7 (compared to Year 1)	-.008	.465
Year 10 (compared to Year 1)	.147	.056
SA (compared to statement)	-.015	.438
SAP (compared to statement)	.284	.001
Academic achievement	-.040	.343
Attendance	-..056	.283
School urbanicity (urban/rural)	-.021	.409

Table 30: Bivariate correlations of the IVs with the DV in the parent dataset

As can be seen in table 31, *behaviour mean* had the strongest significant correlation with the DV, followed by *parental engagement and confidence mean, positive relationships mean, wider participation mean, SAP, ethnicity and Year 5*. *Gender, FSM-eligibility, school type, use of public/school transport, Year 7, Year 10, SA, academic achievement, attendance* and *urbanicity* did not have significant correlations. However, as was the case for the teacher dataset, all variables were retained for theoretical reasons.

Assumptions for multiple regression

Assumptions for multiple regression were assessed and the results are presented in Table 31.

Assumption	Met?	Value	Observations
Continuous or categorical variables	✓	See table 8	All predictor variables and the DV are either continuous or categorical
Non-zero variance of predictors	✓	See table 8	All predictor variables have some variance in value
Multicollinearity (should not be perfect)	✓	Tolerance range = .526-.846 VIF range = 1.182-1.902	Tolerance and VIF are within acceptable ranges for all predictor variables (Menard, 1995; J. Miles & Shelvin, 2009; Myers, 1990)
Homoscedasticity	X	See residuals scatter plot in Appendix 8	Residuals scatter plot is not rectangularly distributed, but the violation is likely due to floor effects discussed in Section 4.6.3
Independence of errors	✓	Durbin-Watson value = 2.317	The range for the Durbin-Watson test is 0-4, with 2 considered the optimum value. The value is close to 2 and therefore acceptable
Normally distributed errors	✓	Standardised residual – mean = .001, standard deviation = .916	Standardised residual should be close to 0 and can be examined in the histogram in Appendix 8, which shows a normal distribution.
Linearity	✓	See Appendix 8	Expected compared with observed values have a linear trend with slight deviation as demonstrated in the Normal P-P Plot of regression standardised residual

Table 31: Assumptions for multiple regression in the parent dataset

Outliers: There were no cases with standard deviations in excess of +/- 3.29, nor were there any with extreme Mahalanobis values. However, there were two extreme

outliers that were identified visually on residuals scatterplots, and which were removed.

Analyses

Multiple regression analysis, using the simultaneous forced entry method was used for the 17 predictor variables. The model was significant, $F(17, 76) = 4.401$, $p < .001$), explaining 38% of variance (Adjusted $R^2 = .383$). Coefficients and significance values for individual predictors are presented in Table 32:

Model	**Unstandardised coefficients**		**Standardised coefficients**	
Variable	**β**	**Std. Error**	**Beta**	**Sig.**
Constant	1.697	1.585	-	.288
Behaviour	.583	.150	.409	< .001
Positive Relationships	-.055	.183	-.033	.765
Parental engagement and confidence	-.329	.139	-.222	.020
Wider participation	-.102	.121	-.085	.401
Gender (male / female)	-.181	.193	-.083	.350
FSM eligibility (no / yes)	-.116	.190	-.060	.543
Ethnicity (white / other)	-.171	.236	-.066	.472
School type (mainstream / special)	-.363	.237	-.149	.129
Use of public/school transport (no/yes)	-.165	.193	-.079	.393
Year 5 (compared to Y1)	.561	.192	.326	.005
Year 7 (compared to Y1)	.522	.215	.273	.017
Year 10 (compared to Y1)	.687	.252	.289	.008
SA (compared to ST)	.189	.335	.057	.574
SAP (compared to ST)	.398	.163	.237	.017
Academic achievement	-.003	.015	-.021	.818
Attendance	-.069	.080	-.081	.390
School urbanicity (urban/rural)	-.145	.205	-.064	.481

Table 32: Multiple regression coefficients of the parent dataset

Of the 17 predictors entered into the model, six were statistically significant: two continuous and four categorical. As for the teacher analysis, categorical variables with only two groups indicate risk through a higher coefficient for those who are members of the categorical group of risk. The value of the standardised Beta coefficient relative to other significant variables indicates the strength of the effect when other variables are controlled for. The interpretation of this can be seen in Table 33.

Variable	**Stand. Beta**	**Sig.**	**Interpretation**
Behaviour	.409	< .001	As the behaviour mean increases by 1SD (.586), so the bullying mean increases by .342[21]
Year 5 (compared to Year 1)	.326	.005	If a pupil is in Y5 so the bullying mean increases by .272
Year 10 (compared to Year 1)	.289	.008	If a pupil is in Y10), so the bullying mean increases by .241
Year 7 (compared to Year 1)	.273	.017	If a pupil is in Y7, so the bullying mean increases by .228
SAP (compared to statement)	.237	.017	If a pupil is at SAP, so the bullying mean increases by .198
Parental engagement and confidence	-.222	.020	As the parental engagement and confidence mean decreases by 1SD (.562), so the bullying mean increases by .185

Table 33: Standardised coefficients for the significant variables in the parent dataset in rank order

From this analysis of the standardised coefficients in the parent data, the strongest predictor of being a victim of bullying was *behaviour mean*. Being in a year group other than Year 1 (the reference group) was the next strongest group of predictors, with a peak in *Year 5*, followed by *Year 10* and then *Year 7*. Being at *SAP* (as opposed to having a statement was the next predictor, with the weakest of the predictors being *parental engagement and confidence mean* (that has a negative correlation with the DV). However, none of the significant predictors had a standardised Beta of less than .222, making all of them reasonably strong predictors.

[21] This figure is calculated by multiplying the standardised Beta for behaviour by the standard deviation of the parent *bullying mean* (.409 x .835 = .342).

4.6.4 RQ2a Concordance between teacher and parent analyses

- What is the rate of concordance between teacher and parent reports of being the victim of bullying?

While the sample sizes differ between the teacher and parent datasets, it is nevertheless important to examine the extent to which there are common findings. An initial exploration of the relationship between *bullying means* is shown in table 34.

	N	**Mean**	**Std. dev.**
Teacher bullying mean	722	.592	.661
Parent bullying mean	112	.953	.833

Table 34: Comparing teacher and parent *bullying means*

The mean for parent responses is notably higher than that of parents, indicating that parents reported greater levels of bullying. The standard deviation of the parent mean was also higher, possibly reflecting the smaller sample size. As neither the teacher nor the parent *bullying mean* scores were normally distributed, Spearman's rho was used to assess the correlation between the means (Field, 2009). The teacher and parent *bullying means* were significantly correlated, $r_s = .316$, $p < .001$, one-tailed, indicating a medium effect (Muijs, 2004). When only those pupils for whom a teacher and a parent had a *bullying mean* score were compared, the correlation was very similar, $r_s = .327$, $p < .001$, one-tailed. This indicates that the teacher *bullying mean* scores for the entire teacher dataset ($N = 722$) and the dataset with teacher and parent *bullying means* ($N = 110$) are comparable in terms of convergence.

The amount of variance in the DV explained by the multiple regression model in each case are shown in Table 35.

Model	**Adjusted R^2**	***F***	**ANOVA**
Teacher dataset	.434	27.617	< .001
Parent dataset	.383	4.401	< .001

Table 35: Comparing teacher and parent bullying datasets

Both the teacher model (43% of variance explained) and the parent one (38% of variance explained) can be deemed to have a modest fit to the data[22]. Given that the teacher model is able to detect moderate effect sizes, but the parent one only has sufficient power to detect large effect sizes, it is possible that this accounts for the lower percentage of variance seen in the latter model.

In terms of predictor variables, there is some convergence between models as demonstrated in Figure 12. As previously explained, all of the predictor variables are considered to indicate either risk or protection, depending on how they are coded: this is of particular note in the case of the categorical variables. Therefore, for the sake of illustrating the predictor variables, they are presented in one model.

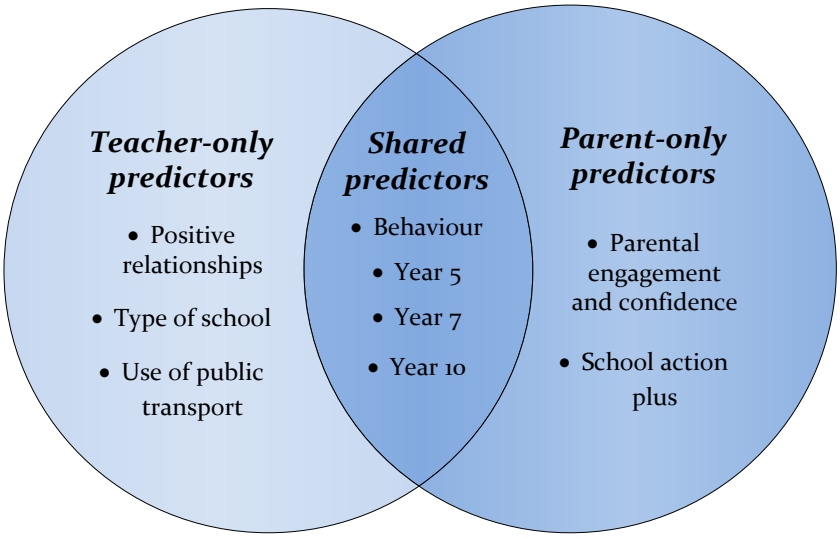

Figure 11: Predictors of being a victim of bullying

It is important to acknowledge that only four of the significant predictors of bullying were shared between the teacher and parent models. Nevertheless, these were also the strongest predictors in the two models and demonstrate some shared concern. That *positive relationships mean*, *type of school* and *use of public/school transport* emerged as additional predictors specific to the teacher model demonstrates particular observations by teachers. Likewise, having the *parental engagement and confidence mean* and being at *SAP* as unique predictors in the parent model indicates that parents had distinct views about aspects of school that impact on their child's vulnerability to becoming the victim of bullying.

[22] < 0.1 = poor fit; 0.11-. 0.3 = modest fit; 0.31-0.5 = moderate fit; > .5 = strong fit (Muijs, 2004).

4.7 2b Cumulative risk

4.7.1 Introduction

The ramifications of cumulative risk and protection were discussed in section 1.5.1, and it is justifiable in the light of the literature to explore cumulative risk in the current study, with particular regard to the nature of the increase in risk: is the increase proportionate (i.e. a linear increase) to the number of predictors to which a child is exposed or is it exponential (i.e. quadratic)?

Thus far, the following variables have emerged as significant in each model and are associated with an increase in the *bullying mean* score:

- **Teacher model**: high *behaviour mean;* being in *Years 5, 7* or *10* (compared to Year 1); low *positive relationships mean*; *type of school* (attendance of mainstream school), *use of public/school transport* to travel to and from school.
- **Parent model**: high *behaviour mean*; being in *Years 5, 7* and *10* (compared to Year 1); low *parental engagement and confidence mean*; *being at SAP* (compared to statement).

In each model, categorical variables with two groups must be considered dichotomous, and as such can be seen as denoting risk or protection according to how they are coded (i.e. *use of public/school transport* can be a risk factor and not using public/school transport can be viewed as protective). However, this distinction is more problematic for continuous variables in which the top 25% (in the case of *behaviour mean*) or bottom 25% (in the case of *positive relationships mean* and *parental engagement and confidence mean*) of pupils is taken to indicate those at risk. Nevertheless, while acknowledging this potential limitation, this is the most commonly used method in the literature (Appleyard et al., 2005; Raviv, Taussig, Culhane, & Garrido, 2010). Due to the exploratory nature of the current study, the decision was made to treat them as risk/protective factors using this method.

Despite the different predictive models that emerged from the teacher and parent datasets, it is also of interest to explore any convergence in the cumulative models to establish whether cumulative risk operates in a similar or different manner: this will be done in each section of cumulative risk.

Therefore, the following sub-questions are addressed in this question in the light of the teacher and parent datasets:

i. Is the risk of being bullied predicted by a cumulative increase in risk factors?
ii. What is the relationship between the number of risk factors and the risk of being bullied?
iii. How do the cumulative models compare with the additive models in terms of their ability to predict the risk of being bullied?[23]

[23] This part of the RQ does not have a separate analysis, but is assessed and evaluated in the Discussion.

4.7.2 Cumulative risk analyses

Descriptive Statistics

In order to assess the cumulative effect of risk on the *bullying mean* score, the significant predictors in the teacher and parent model were recoded where necessary to a binary variable to indicate whether risk was present (= 1) or absent (= 0). In the case of continuous variables, the top or bottom 25% of scores were used, depending on which one indicated risk (e.g. in the case of *behaviour mean*, the top 25% of scores were used, as these indicated those with the highest levels of behaviour problems. The resulting variables for both the teacher and parent datasets are shown in Table 36.

Variables			
Teacher dataset		**Parent dataset**	
Behaviour	0 = no risk of behaviour problems 1 = risk of behaviour problems (top 25% of scores)	Behaviour	0 = no risk of behaviour problems 1 = risk of behaviour problems (top 25% of scores)
Positive relationship	0 = no risk of poor positive relationships 1 = risk of poor positive relationships (lowest 25% of scores)	Parental engagement and confidence	0 = no risk low parental engagement and confidence 1 = risk of low parental engagement and confidence (lowest 25% of scores)
Year group	0 = in Year 1 1 = in Years 5, 7 or 10	Year group	0 = in Year 1 1 = in Years 5, 7 or 10
School type	0 = attends special 1 = attends school	SAP	0 = not at SAP 1 = at SAP
Transport	0 = does not use public/school transport 1 = uses public/school transport		

Table 36: Coding of risk for the teacher and parent datasets

For *cumulative risk* arising from the teacher model, there were a maximum of five risks and four in the parent one. The next step involved examining the number of pupils who had identified risk factors and establishing whether the *bullying mean* rose with increasing risk. This was done by computing a risk score as presented in Table 37.

Teacher risk (mean = 2.23, St. Dev. = .910)			Parent risk (mean = 1.83, St. Dev. = 1.011)		
Risks	**Frequency**	**Percentage**	**Risks**	**Frequency**	**Percentage**
0	10	1.4	0	9	7.6
1	124	17.2	1	39	32.8
2	353	48.9	2	40	33.6
3	170	23.5	3	25	21
4	57	7.9	4	6	5
5	8	1.1	Total	119	100
Total	722	100			

Table 37: Number of risks to which pupils were exposed in teacher and parent datasets

This demonstrates that the majority of children had between one and three risk factors. The mean scores were different in the teacher and parent models, as this value was reflected in the higher number of risk factors in the teacher model.

Is the risk of being bullied predicted by a cumulative increase in risk factors?

In order to assess whether there is a rise in the risk of being bullied that is linked to the number of risk factors to which a child is exposed, the difference in *bullying mean* scores was examined according to the different number of risk factors. The results are demonstrated in Table 38.

Teacher model		Parent model	
Risks	**Bullying mean score (Std. Dev.)**	**Risks**	**Bullying mean score (Std. Dev.)**
0	.027 (.060)	0	.183 (.294)
1	.212 (.328)	1	.604 (.685)
2	.437 (.511)	2	.890 (.740)
3	.884 (.702)	3	1.640 (.762)
4	1.439 (.700)	4	1.819 (.617)
5	1.804 (.566)	Total mean	.947 (.835)
Total mean	.592 (.661)		

Table 38: Increase in *bullying mean* and standard deviations in teacher and parent datasets

As expected, the *bullying mean* score increased steadily with each additional risk factor in both the teacher and the parent model, indicating that the risk of being a victim of bullying did in fact rise incrementally according to the number to risk factors to which a child was exposed. Similarly, the standard deviations increased in value, with a notable reduction only at the maximum number of risks.

In order to assess whether the *cumulative risk* score showed a positive association with the *bullying mean*, a regression analysis was applied with the *bullying mean* score as the DV and the *cumulative risk* score as the IV. The results indicated that for both the teacher and parent datasets, the model was significant and that the *cumulative risk* variable was a significant predictor of an increase in the *bullying mean* score, as demonstrated in Tables 39 and 40.

Teacher model Adjusted R^2 = .289, $F(1, 720) = 294.753$, $p < .001$				
	Unstandardised coefficients		Standardised coefficients	
	β	Std. Error	Beta	Sig.
Cumulative risk	.392	.023	.539	< .001

Table 39: Teacher regression model with the *cumulative risk* variable

Parent model Adjusted R^2 = .298, $F(1, 117) = 51.125$, $p < .001$				
	Unstandardised coefficients		Standardised coefficients	
	β	Std. Error	Beta	Sig.
Cumulative risk	.455	.064	.551	< .001

Table 40: Parent regression model with the *cumulative risk* variable

In both models, the amount of variance explained was similar (29% in the teacher model and 30% in the parent one), and the standardised coefficients for the *cumulative risk* variable were high.

What is the relationship between the number of risk factors and the risk of being bullied?

As noted in the previous section, the risk of being bullied rose steadily as the number of risk factors increased. However, it is also of interest to assess whether the relationship between risk factors and bullying was a linear one or whether it demonstrated a disproportionate increase (i.e. it displays an exponential relationship across some of all risks). The change in mean scores as the number of risks rose is shown in Table 41 and Graphs 1 and 2.

Teacher model		Parent model	
Change in bullying mean		**Change in bullying mean**	
0-1	.185 (.268)	0-1	.421 (.391)
1-2	.225 (.183)	1-2	.286 (.055)
2-3	.447 (.191)	2-3	.750 (.022)
3-4	.555 (-.002)	3-4	.179 (-.145)
4-5	.365 (-.134)		

Table 41: Change in *bullying mean* according to number of risks (standard deviation change)

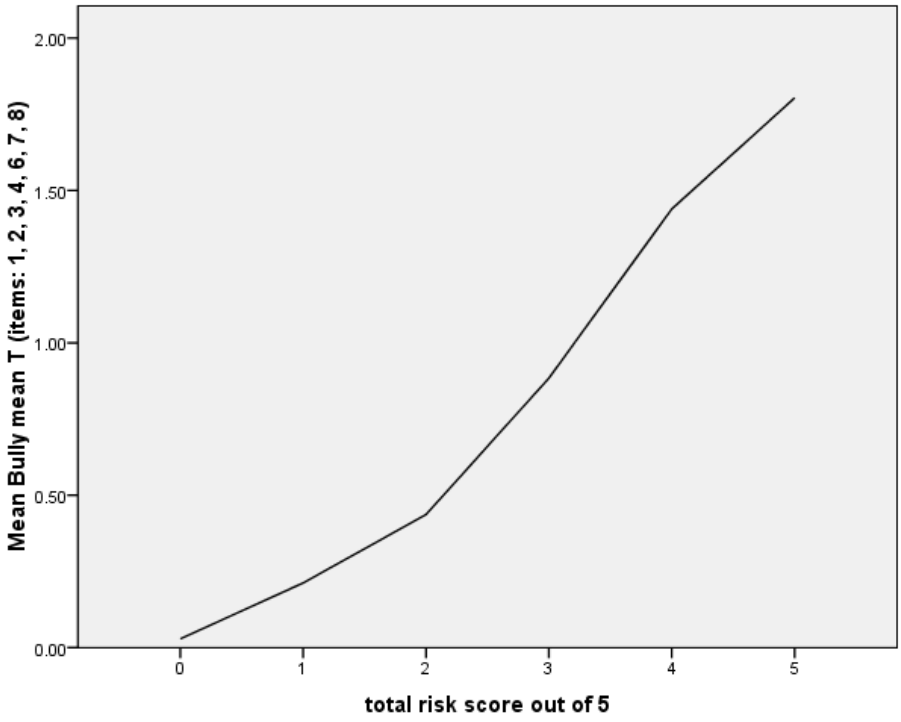

Figure 12: Graph of cumulative risk for teacher-report

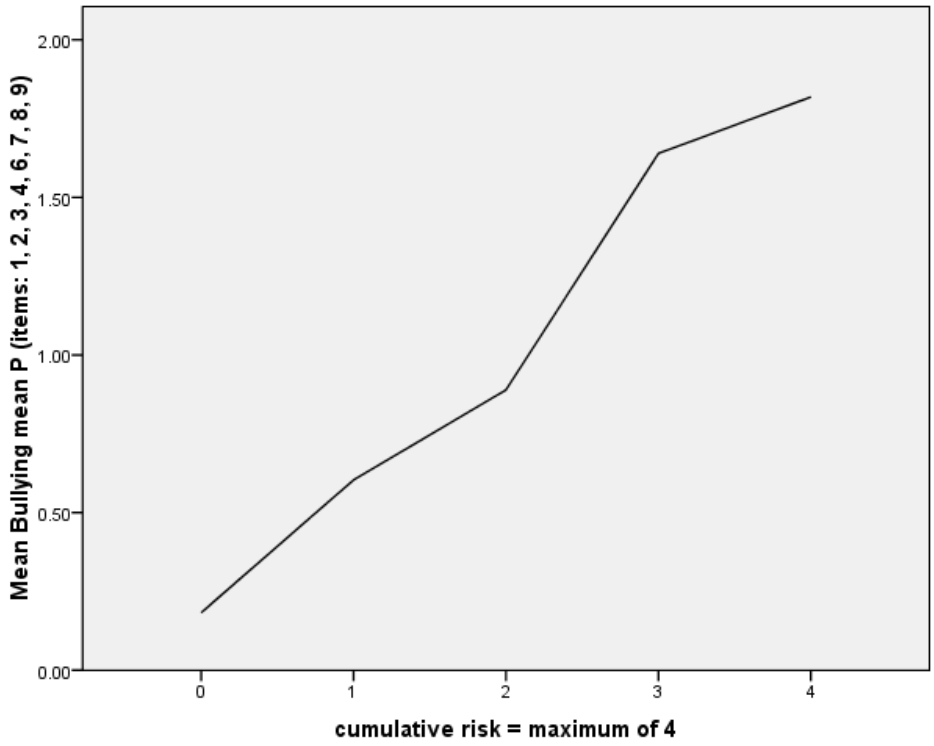

Figure 13: Graph of cumulative risk for parent-report

In the case of the teacher model, both in terms of the difference in mean score and the slope in the graph, there is evidence to suggest that the increase in *bullying mean* score was not linear across all risks, with an especially large change in *bullying mean* scores at the 2-3 and 3-4 risk points.

The parent model was similar in that it did not indicate a linear relationship across all risks. However, in this latter model, the greater increases appear to be from 0-1 risk and even more strongly from 2 to three risks.

From these descriptive statistics it was possible to explore the nature of the relationship by using hierarchical multiple regression analyses. An additional variable called *cumulative risk squared* was created that would be enable the detection of any exponential relationship. The *cumulative risk* and *cumulative risk squared* variables were centred in order to avoid the risk of multicollinearity before entering them into the regression model (see Section 3.9.4). The results of these analyses for the teacher model are presented in Table 42, and for the parent model in Table 43.

Teacher model					
		Unstandardised coefficients		**Standardised coefficients**	
		β	**Std. Error**	**Beta**	**Sig.**
1	(Constant)	.593	.021		< .001
	Cumulative risk	.392	.023	.539	< .001
	Adj. R^2 = .289, $F(1, 720)$ = 294.753, p < .000				
2	(Constant)	.540	.025		< .001
	Cumulative risk	.368	.023	.507	< .001
	Cumulative risk squared	.064	.017	.121	< .001
	Adj. R^2 = .302, $F(2, 720)$ = 157.044, p < .001				

Table 42: Teacher regression model with *cumulative risk* and *cumulative risk squared* variables

In the teacher model above, it can be seen that the model fit slightly improved when the *cumulative risk squared* variable was added (increasing from a 29% to a 30% fit) to model 2 and the model remains significant (R^2 change = 0.14, p < .001). This would suggest that the increase in the risk of being bullied rises exponentially in a quadratic manner, rather than in a purely linear manner.

Parent model					
		Unstandardised coefficients		**Standardised coefficients**	
		β	**Std. Error**	**Beta**	**Sig.**
1	(Constant)	.949	.064		
	Cumulative risk	.455	.064	.551	< .001
	Adj. R^2 = .298, $F(1, 117)$ = 51.125, p < .001				
2	(Constant)	.915	.084		
	Cumulative risk	.449	.065	.544	< .001
	Cumulative risk squared	.030	.053	.044	.576
	Adj. R^2 = .294, $F(2, 117)$ = 25.570, p < .001				

Table 43: Parent regression model with *cumulative risk* and *cumulative risk squared* variables

The parent model did not display an exponential pattern, as the model became non-significant when the squared term was added (R^2 change = .002, p = .576). Thus, although there is some variation in the increase from risk to risk, the overall model follows a linear pattern of increase.

4.8 Summary statements - RQ2

All predictors may be viewed as indicating risk or protection depending on how they are coded (in the case of categorical variables) or scored (in the case of continuous variables).

Additive teacher model:

- 15 predictor variables were entered into the model using multiple regression, with *bullying mean score* as the outcome variable.
- The model was significant and explained 43% of variance, with seven predictors of statistical significance (*behaviour mean*, being in *Years 5, 7 or 10, positive relationships mean, type of school, and use of public/school transport*).

Additive parent model:

- 17 predictor variables were entered in to the model using multiple regression, with *bullying mean score* as the outcome variable.
- The model was significant and explained 38% of variance, with six predictor variables of statistical significance (*behaviour mean*, being in *Years 5, 7* or *10, parental engagement and confidence mean, SAP).*

Convergence between models:

- Shared factors between the teacher and parent models were *behaviour mean* and being in *Years 5, 7 or 10.*
- There was moderate convergence between the *bullying mean* score provided by teachers and parents ($r_s = .316$, $p < .001$).

Cumulative risk:

- Five statistically significant predictors made up the *cumulative risk* score in the teacher model and four in the parent one.
- Multiple regression analysis indicated that the variables predicted 29% of variance in the teacher dataset and 30% in the parent dataset.
- Most pupils in the teacher and parent models had between one and three risk factors, with a small number exposed to all or no risks.
- The risk of being bullied rose exponentially in the teacher dataset and in a linear manner in the parent dataset.

CHAPTER 5: QUALITATIVE RESULTS

RQ3: What are the perspectives of key stakeholders around prevalence, victim role, risk and protective factors associated with bullying of children and young people with ASD?

5.1 Introduction to Research Question 3

In the final research question, perspectives on bullying were explored qualitatively. Interviews conducted during the evaluation of AfA (Humphrey et al., 2011) with parents and teachers of children with ASD were explored. Interviews with three of the five pupils were also conducted, and while they were shorter and less detailed than those with the adults, they were included in this analysis, as they permit an additional perspective and unique insight. Following Braun and Clarke's (2006) model of using thematic analysis in psychology, transcripts were analysed using six key stages, with quality of the analysis measured using their 15-point checklist (see section 3.9.5 and Appendix 5). Upon completion of the exploration of the qualitative data, five main themes were found, each one of which contained sub-themes. The five main themes are presented graphically in Figure 12 below, and the full thematic map (including sub-themes) is presented in Figure 13.

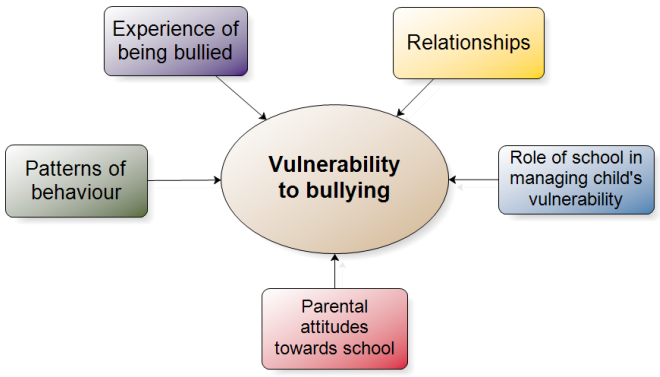

Figure 14: Main themes

Each of these themes is explored in the following sections, detailing teachers' (including Teaching Assistants') and parents' perspectives on bullying, and also those of three of the five focus pupils. An overview of the pupils is presented in section 3.6.2 of the Methodology. For the sake of clarity, interview extracts are shown using italics in this chapter.

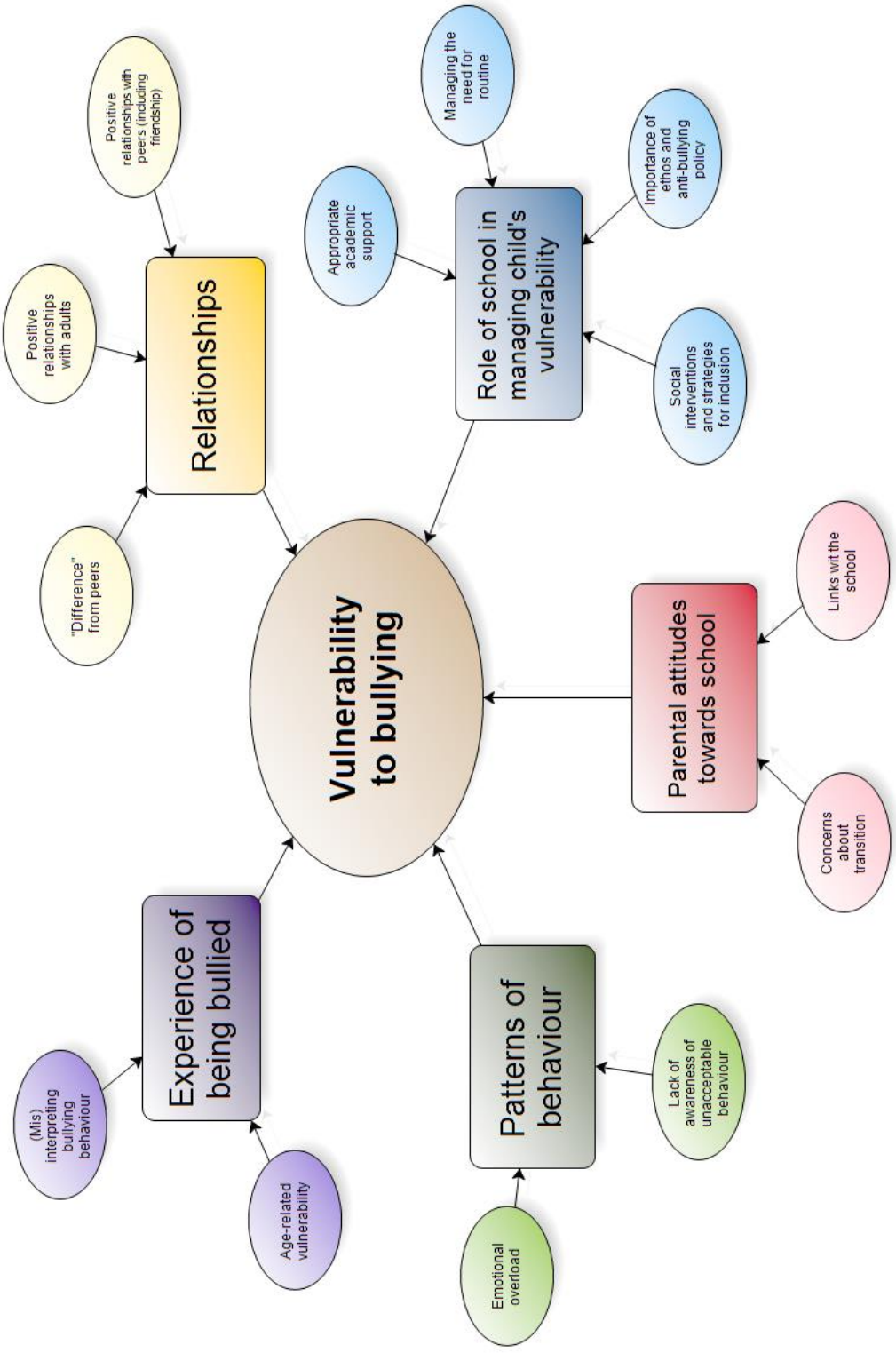

Figure 15: Full thematic map

5.2 The experience of being bullied

This initial theme concerns pupils' exposure to bullying, and what it means to them, their parents and teachers. There are two sub-themes:

- Age-related vulnerability to bullying
- Interpreting and misinterpreting bullying behaviour

What was immediately apparent from both teaching staff and parents was that none of the focus pupils had experienced or was experiencing severe levels of bullying at the time of the interviews. Nevertheless, there was an appreciation that these children were vulnerable to bullying behaviour from other pupils, and this was indicated in particular in parent interviews: *"Nobody laughs at him or teases him yet because I think the children are too young to sort of understand anyway, but I think maybe in sort of three or four years' time"* (Robbie's mother).

This identifies the issue of age, and it is of interest that as the youngest pupil, Robbie was not subject to bullying behaviour from his peers, but his mother already suspected that they may become less tolerant over time. This latter point was taken up by Georgina's mother, who stated:

> *When I drop her off in the morning […] she will go over and stand next to her friends and quite often I will see them sigh and turn away as if saying 'oh Georgina is here,' and they will start talking amongst themselves and ignoring her.*

While this was not necessarily a malicious form of shunning, this suggests that older children may indeed become less tolerant over time. This was further highlighted by Samuel's mother: *"I think the other kids know how to push the right buttons, what annoys him, which would normally be little taunts."* This reduction in tolerance was noted more frequently by parents than teachers, perhaps because they tend to see pupils in just one year group, as opposed to having the longitudinal perspective of parents.

Both parents and teachers concurred more consistently when it came to acknowledging that more minor incidents of unkindness towards the focus pupil did take place, such as name-calling and teasing, although there was a clear discrepancy between adult and child interpretations of these incidents. In the case of the children, there often seemed to be a failure to understand certain acts of unkindness which

may be beyond the cognitive level of the child with ASD:

> *I think he would [tell the teacher about it] if it was an obvious thing like if someone pushed him or kicked him, if it was something someone had said then I am not sure he would necessarily understand so may not.* (Robbie's teacher)

Alternatively, there may be an over-reaction to relatively minor incidents: e.g. "*[other pupils] will tease Samuel about something really small, not even significant in his life, you know, they will start saying something and he will flip and next thing you know, Samuel is in trouble"* (Samuel's mother). Nevertheless, it is important to keep different people's perspectives in mind in such cases, as although Samuel's mother regarded a comment as insignificant, this may not have been how her son perceived it: indeed it may have produced a highly stressful and anxiety-provoking situation for him. On a similar note, sometimes an incident in which a child does not get what he or she wants can also be interpreted as bullying, as was the case when Samuel accused a teacher of this, when he was not allowed promptly into the school canteen at lunchtime. The teacher regarded this as a manipulative over-reaction, when in fact he may have been trying to retain some control over a difficult situation.

Jack's mother made a distinction between isolated incidents and more sustained attacks:

> *I've come in because you know, if I feel that Jack is being, not always bullied because I think that is, I think bullying is more of an on-going thing isn't it whereas there's kids that are sometimes a bit pickier to each other aren't they?*

Nevertheless, Jack's mother was clearly vigilant to the possibility of her son being the victim of bullying. Similarly, staff members were cautious about over-interpreting situations as bullying: e.g., "*there is a fine line between not being very kind and it being bullying"* (Jack's teacher).

In a similar vein, Francesca's teaching assistant mentioned "*a couple of them did try and start to [bully], but they were really squashed quickly and she didn't like it then, she didn't like it at all,"* although it is of note that Francesca did recognise the malicious intent and was upset by it. Nevertheless, Francesca did not appear to realise that any bullying had taken place when she was interviewed. This could simply be because she had forgotten about what may have been a relatively minor

incident, or she may not have understood it as bullying, even though she had been upset by the behaviour at the time. Alternatively, she may not have wished to share sensitive information with the interviewer.

This potential difficulty in understanding situations is compounded by problems for the children in interpreting the motivation behind verbal taunts: e.g. *"Robbie especially can't be teased can he? Can't be teased. […] He doesn't understand if someone's playing a joke or not"* (Robbie's father). While this point about pupils with ASD misinterpreting the words and actions of others is explored in more detail in the theme on Relationships, it is of note that adult perceptions of these incidents were more moderate, with some consideration of what does and does not constitute bullying. For example, while Georgina's mother explained that although her daughter "*would probably not recognise bullying as you or I would*", she mentioned that there had been a "*little issue with a bit of teasing*" that the school had dealt with quickly and effectively.

In terms of understanding the concept of bullying, all of the three pupils who were interviewed were able to provide a reasonable working definition (e.g. *"It is when someone doesn't leave you alone, they pick on you, they make fun of you, they just never leave you alone*" – Francesca). However, the pupils had considerably more difficulty explaining why someone might be bullied, with Samuel citing hair colour because he'd seen it on an anti-bullying poster, and Jack appearing to confuse the idea of bully and victim. While this could be true for many TD children, it is of note that the focus pupils did appear to have difficulty conceptualising bullying despite knowing how to define it, and this could be part of their vulnerability.

Thus, when it comes to being the victim of bullying, it is clear that the focus children did not suffer its most serious forms. Nevertheless, it is also apparent that all of these children were subject to some bullying behaviours from others and the likelihood of this happening increased with age. While the children themselves may have had difficulty in accurately interpreting and reporting the severity of these incidents, both parents and teachers appeared vigilant to the potential risks. This could be reflective of more supportive and understanding schools, although the mismatch between adults' and children's understandings of bullying is of significance.

5.3 Patterns of behaviour

Behaviour problems are common correlates in children with ASD (Macintosh & Dissanayake, 2006), and so it could be predicted that this would emerge as a powerful topic in the interviews with parents and teachers. There are two sub-themes in this section:

- Behaviour problems stemming from emotional overload as a result of:
    - Frustration
    - Anxiety
    - A need to feel in control
- Lack of awareness of unacceptable behaviour

Unacceptable behaviour in the classroom is something that no teacher wishes to encounter, in the same way as parents do not want to be faced with constant behavioural challenges at home. In the interviews there was a keen awareness that there were certain triggers that could impact on a child's behaviour. Key to this was the difficulty in social understanding that is central to the triad of impairments in ASD, and which can have dramatic consequences. As Robbie's mother noted: "*He still has occasional tantrums if he gets very frustrated or if his routine changes unexpectedly.*" This was also the case for the two other boys, and in particular, Samuel, who had recently been excluded for violent conduct: *"He does not like noise, lots of people, if you give him too many commands at once he gets confused and flips out and runs off.*" (Samuel's mother).

It appears that the frustration about not understanding a situation can lead to sudden, elevated anxiety levels that can spiral out of control with alarming speed. This was confirmed by Jack's mother, who provided an insight into the causes of her son's disruptive behaviour on one recent occasion:

> *There was an incident on Monday, he was anxious because I had gone to the hospital, I think because he is doing so well I sometimes forget that he is actually on the spectrum, he does still get anxious about things and I hadn't explained it properly and when I came into school yesterday I said I can tell you now exactly why he behaved that way. But anxiety for Jack is a big one, when he is anxious you usually get the behaviour.* (Jack's mother)

This is a powerful illustration of how a child with ASD may experience the world

differently from peers. It also clearly expresses how the parent of a child with ASD struggled to adapt to her child's anxieties when he appeared to manage well at school much of the time. This was also well understood by staff, as was the case for Samuel's teacher: "*He used to get himself anxious and confused and then he's do fight or flight, so he'd either leg it over the fence or he'd lash out and then run*."

Nevertheless, Georgina did not have clear behavioural issues and had a tendency to become passive if she did not understand. This was also the case for Francesca who had never had any behavioural issues noted by staff and who was very open about how well she behaved at all times. However, her need to adhere to rules and routine had the potential to result in contravening an unwritten rule among peers: "*She's got a very clear view of what's right and what's wrong, and that worries her sometimes, because when some of the others are misbehaving she doesn't like that, but she doesn't want to tell on them either, because she's seen how they react when other girls have said something*" (Francesca's teacher). This lack of behaviour problems may be an element of individual variation, or alternatively it could be illustrative of the difference in behavioural patterns sometimes noted between boys and girls with ASD (Attwood, 2007).

All of the pupils, however, did appear to have a need for control that could be as a result of finding many aspects of the social world difficult to navigate. For example, Jack's mother explained:

> *If there is something he does not want to do, if you say it has to be done he will just flip. Last week he got excluded, he threw a chair, he threw a whiteboard, threw a bin and kicked the teacher*.

While this is an example of behaviour that is clearly unacceptable in a school environment, there are triggers that have threatened the child's perceived locus of control, resulting in emotional overload and reactions that appear out of all proportion.

A child with ASD having a tantrum may be an expression of loss of control, but a need to stay in control can also be interpreted as behaving in a manipulative manner. For example, Georgina's teacher stated that: "*she doesn't take no for an answer very easily. You have to be very firm with her and she'll keep on*." Similarly, Samuel's teacher described how "*he will only want to do one thing and then he won't let the*

others take turns and that is a problem." In both cases such reactions may come across negatively to staff and parents. Indeed it may be difficult to distinguish between this apparent desire for control and a drive to manipulate those around the child, as a learnt behaviour. For example, Jack's mother stated, "*I think he is very good at knowing who he can push and who he can't*," and Georgina's teacher also felt that while her behaviour was generally very good, "*she can be a bit of a madam […] especially if Lynn's (teaching assistant) not there*."

Thus, it can be difficult to explain with accuracy the motivations behind certain behaviour, and this underpins the need to know the child well enough to know his or her triggers and motivations. Linked to this is the child's understanding and awareness of the consequences of such actions. Both of the girls' mothers realised that their daughters could inadvertently be disruptive "*because she wouldn't have known what she was doing*" (Georgina's mother), and "*it's not poor behaviour, it's a need to express herself orally, but she doesn't always judge her moments correctly*" (Francesca's teacher).

A more extreme example of this lack of awareness of what is unacceptable can be seen in Samuel, who felt that he was well-behaved and stated that he tried "*to be the most sensible person*" in class, which is in contrast to reported incidents of extreme behaviour. The effect of outbursts from children with ASD can also have a negative effect on other children, as explained by a teacher at Jack's school (although it is not clear whether she was referring to him or to another pupil with ASD): "*We had a lot of parents in, bit of an issue here, when we have a child particularly with ASD saying 'you've got to get rid of him 'cause he's done this to my child'*."

Why behavioural difficulties are a strong predictor for being bullied is likely to stem from the fact that extreme behaviour of any sort singles out a child from the peer-group, potentially making that child more difficult to approach. Furthermore, a child for whom emotional regulation is problematic, who loses control and may cry more easily than others are all markers for vulnerability to bullying by others in the peer group who perceive them as weak. The difference between the boys and the girls is of particular note in this theme, although all of the focus pupils had some inappropriate behaviour patterns.

5.4 Relationships

The topic of relationships with others, and particularly the peer group was another area to emerge strongly in the context of vulnerability to bullying. The ability to relate to adults and peers at school is of great importance for all children, but the social difficulties inherent in ASD are likely to have a profound effect on these communicative processes that seem to come naturally to most children. There are three sub-themes in this section:

- Positive relationships with adults
- Positive relationships with peers (including friendship)
- Difference from peers

All of the focus children were seen as having positive relationships with adults at school, for example: "*She likes adults, she is very good with adults, she is interested in them*" (Georgina's mother) and "*He is a lot more comfortable around adults than the children*" (Robbie's mother). However, on closer examination it was apparent that these positive relationships with adults were dependent on a number of factors important in the children's lives. In Georgina's case, she had been supported by the same teaching assistant over many years, meaning that a considerable level of trust and confidence had been built up:

> *She will ask for help but it depends who it is, if it is me or another teaching assistant that she knows well in the class she will, I am not sure she would go to the teacher at the moment, as I don't think she has quite got that connection with the teacher yet.* (Georgina's teaching assistant)

This was also very much the case for Jack, who had a preference for a teacher he had known over several years compared with a newer one.

For Robbie's mother, the positive rapport with adults at school was important as she felt "*everyone sort of knows him and has something to do with him really*", and she conjectured that he was so at ease around them because *"they just feel safer to him because they're sort of more authoritative to him*." This was also the case for Francesca's positive relationship with her form tutor who was "*so consistent, absolutely consistent, there is never any variant from the rules*" (Francesca's teacher). This raises an important point that relates not only to knowledge of the child but also predictability, in that school staff are expected to behave in fair and

expected ways, and which might be less certain in the case of peers. This need for predictability may provide an element of security, and in Samuel's case this was achieved by latching onto a teacher with whom he felt comfortable.

Unfortunately, this ability to form a close and trusting bond with adults was not replicated in the focus pupils' relationships with peers, and a different picture emerged. As the youngest pupil, Robbie appeared to have the fewest difficulties, although his social relationships were atypical. For example, his teacher observed that "*he doesn't really have relationships with his peers in the same way as other children do because he is very sort of separate*," and that "*he has found a couple of friends that will play alongside him rather than against him, but he is quite happy with that*." Nevertheless, he had started to refer to friends, something which pleased his mother, as she felt his social skills were developing. Furthermore, his teacher felt that the other children were very tolerant of him because "*they have been with him since Foundation, so I think they all know him quite well*."

The situation for the older pupils was more complex. In the case of Georgina, her learning delay meant that there was an ever-increasing gap in maturity between her and her peers: something of which her mother was painfully aware:

> *The girls have obviously moved onto I don't know whatever 10 year old girls do, whereas Georgina is still very much liking Peppa Pig and more childish things. So she does not really have any common interest with them, any conversations that they are having it means nothing to her and she can't keep up with the playground chatter.*

While she noted that "*the other children have always been quite kind towards her*", it appeared that relationships with peers did not have the reciprocity that is associated with typical friendships, and that her link with her female peers was only at the level of them tolerating her as an accepted member of the class. This was a driving force behind her mother opting for a special school for Georgina once she reached secondary age, as she felt that "*it is really important that she has got like-minded children with her*." Indeed, Georgina's only friend seemed to be a little boy in her class who also had special needs, and to whom she was very attached.

Jack appeared to have more positive relationships with his peers, but his mother and teacher pointed out that his keen interest in football was what provided a link

between him and the other boys in his class. Indeed, when asked about his friends, the only information Jack offered was that they were "*nice*", "*they like football and that's it*." Samuel, however, appeared to have been isolated from his peers throughout much of his time at school and he was acutely aware of this. However, his mother was pleased that in Year 6 he seemed to have made friends with her best friend's son who was a popular boy. Nevertheless, she still viewed him as "*tagging along in the background*", suggesting that although he now had a friend, the actual friendship was not particularly reciprocal and may have been dependent on the other child's tolerance of him.

As the oldest focus pupil, Francesca's social experiences with her peers bore a striking resemblance to those of the others, in that she was tolerated by a largely understanding peer group, but she had not formed the closer bonds that would constitute a typical friendship. She had, however, recently formed a friendship with another pupil at her school from a different class, although her teacher was uncertain about the quality of the friendship. While she was able to talk about her friends in the interview, she was unable to quantify friends, simply stating that they were "*nice*" and "*helpful*". Similarly, she felt that some of the other pupils did not like her, but was unable to explain why this might be.

Thus, having a tolerant and even "*protective*" (Francesca's teaching assistant) peer group appeared to play a central role in making school a more comfortable place for the focus pupils, even if they were not fully integrated socially. This separation from peers is an important vulnerability factor for bullying and is inextricably linked to a sense of difference that was felt by parents, staff and some of the children. While Robbie appeared unaware of differences between himself and other children, his teacher felt that the other pupils were beginning to recognise that he was different, although there had been no negative reactions so far. Despite her learning delay, Georgina's teaching assistant believed that she was starting to recognise differences, and this was also true for Francesca: "*She is different but she doesn't necessarily want to see herself as different*" (Francesca's teacher).

The sense of difference was quite different for the two older boys: Jack had clearly benefited from his interest in football, which had given him a powerful link to the other boys in his class in terms of a shared interest. However, his mother realised that

this was not as simple as it may appear superficially, stating: "*Socialising and stuff like that, he does find that quite hard sometimes. I think sometimes he almost thinks he doesn't, but you know, when you sort of stand back and watch, sort of as a parent you notice things*." This links in with a lack of awareness of social situations, with the parent more understanding of a potential deficit in social understanding than the child.

Francesca did not expressly state that she felt different from her peers, but she was aware of her lower academic levels in comparison to them (e.g. "*Some guys in my class are a bit smarter than me*"). Samuel, on the other hand, was painfully aware that he was not like the others, and it was this difference to his peer group that his mother attributed to being bullied:

> Interviewer*: Why do you think he might have been a victim?*
> Samuel's mother*: Just because he is different, I mean, just the way he talks, the way he does everything. You look at another ten or eleven year-old and you can see the difference. I can see the difference straight away, just the way his mannerisms and things like that.*

It is clear that all of the focus children are seen by adults as different from their peers, and this is also the case for the other children in the class, although having a tolerant peer group (or a shared interest) would appear to offer some protection. While perceived difference in itself may increase vulnerability to bullying, it is also likely to raise further the child's sense of isolation, making the experience of school more demanding.

5.5 School's role in managing the child's vulnerability

The realisation that a child with ASD is particularly vulnerable to being the victim of bullying is especially apparent in the previous themes, and so it comes as no surprise that the role of the school in managing this vulnerability was a key area apparent in teacher and parent interviews. This theme is divided into four sub-sections:

- Appropriate academic support
- Social interventions and strategies for inclusion
- Managing the need for routine
- Importance of school ethos and an effective anti-bullying policy

While academic progress in itself may not appear to be critical to a child's vulnerability to bullying, having appropriate support when at school can help a child to grow in confidence and play a more central part in the class, thereby reducing the potential for the isolation that has become apparent in the previous themes. This was demonstrated in the level of understanding of ASD that the schools had. For example Robbie's mother stated:

> *When they told us that, you know, he was autistic and so we went back to the school they were very good in 'right this is what we do now, this is what we'll be doing for him, we'll do this and do that and we can, you know, we can put things into place that you know will help Robbie' and it made me feel a lot more relaxed and sort of more confident.*

In the case of Georgina, it was felt that thoughtful differentiation of her work enabled her to feel more included in the class: "*They try and link it in, they are always linking it in with what the class is doing and then differentiating it for the level Georgina is at*" (Georgina's mother), although the school was also working towards making her less dependent on her teaching assistant, as she approached the transition to secondary school. This close attention to making sure that academic work was set at an appropriate level was also apparent for the other pupils. For example, Robbie's teacher said, "*For him to succeed at activities he tends to need to be quiet and with another adult working one on one."* This understanding of the child's academic needs should help to keep additional anxieties at a minimum, and enable him/her to progress in a mainstream setting, albeit with additional support available.

The central role of the teaching assistant was apparent in relation to the academic progress of the focus pupils, with Robbie, Georgina and Francesca working closely and collaboratively with them. Nevertheless, there was also the feeling that these three children risked over-reliance on them (e.g. "*If she doesn't have an assistant in important classes, she just panics and is very dependent on the assistant*" - Francesca's teacher). This was not the case for Jack and Samuel whose parents were keen to point out how the boys were encouraged to develop more independent learning styles, with the teaching assistants withdrawing unless support was actually needed: "*I think he gets support when he needs it from the teaching assistant within the class*" (Jack's mother), and "*He has had different teaching assistants, but they have always been in the background*" (Samuel's mother). Thus, used appropriately, the teaching assistant's role (or even that of the class teacher in a one to one capacity) was seen very much as that of an enabler and confidence booster in accessing the mainstream curriculum.

In addition to academic support, schools were seen to provide significant levels of social support to promote the children's skills and enable a sense of inclusion in the life of the school. In Georgina's case, there was a lunch club and also a buddy system, whereby children in Year 6 kept an eye on younger, more vulnerable children in the playground. Samuel's school provided a lunchtime games club, enabling structured activities to take place. This subtle monitoring of vulnerable pupils at unstructured times of the day through guided activities provides support in environments in which children with ASD can feel especially anxious. Jack's school used solution-focused strategies with vulnerable pupils, and SEAL was mentioned in both Robbie's and Samuel's schools in the context of helping with their social skills. Francesca's school had a *Hub* where more vulnerable pupils could go at lunchtime and socialise in a safe, supported environment.

Georgina's teaching assistant felt strongly that children with special needs should feel just as included as the other children in the class:

> *I think at primary school level, with the support put in place, then I don't see why children, even if they are the only one in the class, they still should be included. I think you just have to think differently if you have a child with special needs and you just have to adapt things to include them.*

This was reiterated by the classroom teacher, suggesting that a strong inclusive

school ethos can enable all children, but particularly those with ASD, to feel socially integrated.

A way in which many children feel a greater sense of involvement in the school community is through participation in extra-curricular activities, particularly those run after school. Despite the successful attempts to monitor and support the focus pupils during unstructured times of the school day, the children's participation in after-school activities was less common, with all of them finding it more challenging. Georgina and Francesca both struggled with clubs due to being at a different level of emotional and social maturity to the other children. Robbie also found clubs difficult because he was tired at the end of the day, and also, despite enjoying sport, the football club led to high levels of anxiety:

> *I think it is the noise and I think other kids and again with things like the out of school clubs like your tennis or your football a lot of it is taking turns and partnering up and I think sometimes he can still struggle a bit with that.* (Robbie's mother)

Although very keen on sport, Jack often lacked the energy to attend clubs after school, because "*he does have it so full on at school that at the end of the day he just wants to go home and forget about it*" (Jack's mother), and he was quick to point out that he did not like school because "*it's too long, it's six hours."* Samuel was the only one who had really enjoyed clubs, but it is of note that he was initially reluctant to attend, and it was only due to the school's continued encouragement that he became involved. Therefore, it is clear that schools make great efforts to include the focus children in the school community. During the school day this was largely successful in that it helps to avoid isolation and marginalisation from the peer group. Nevertheless, the school day is still long and tiring for these children and this may explain why they were reluctant to stay on for clubs beyond the end of the school day.

An additional aspect of school that can lead to difficulties and considerable anxiety for children with ASD is change in routine, but it was apparent that staff in all of the pupils' schools had an insight into this as an area of stress. Georgina's mother realised the importance of this:

> *I think because her teacher knows her so well, the same as at home, we kind*

> *of do things the way they need to be done, so that we don't aggravate things, but if things don't go according to plan that could set her off for the whole day*.

This concern was reiterated by Robbie's teacher: "*He needs to know in advance what is going to happen*." This was also true for Francesca, although her mother felt that she had begun to adapt to change more successfully at secondary school. Therefore, it is important that these children's difficulty with change is not antagonised unnecessarily, and teachers have awareness that change can be introduced if it is managed and planned for appropriately.

Linked to routine is consistency: Samuel was at his most settled when he had stability at school, and his mother felt that he had been fortunate in keeping the same teacher for several years. Nevertheless, while Jack had also had continuity of staffing, his mother was keen for him to change teacher when he moved from Year 5 to Year 6 in order to prepare for secondary school, explaining: " *I just feel that when he goes, it's going to be one hell of a change for him having totally different teachers*." Therefore, in this case, although the pupil was settled with the teacher, it is of note that his mother made a conscious effort to make the transition to secondary school less difficult for him, even if there was a risk of some disruption in the short-term. This topic of transition is developed further in the final theme.

The significance of understanding and acting upon bullying behaviour was highlighted by parents in terms of the school ethos. In particular, the importance of a clear and effective anti-bullying policy that everyone understood and implemented emerged strongly. This contributed to a strong ethos, which made the school more approachable: *"It's a very friendly school and I think the staff help to make sure that the children, get on and that they're friendly and helpful to each other and they've got respect for each other*" (Georgina's mother). This included an appreciation of the inclusive nature of the school, and one in which children with specific needs were able to flourish:

> *I think it is all the things we have in place in school, I think they all build up, they build up to support him and they also build up to teach the other children how to relate to children that may be have different needs to them. I think that the fact we are all involved in that is positive.* (Robbie's teacher)

Schools played a substantial role in managing the vulnerability of children with

ASD, and considerable success was achieved through sensitivity to their needs and differences. Nevertheless, there are aspects of school that are likely to remain a challenge, and it is only through careful planning of support and interventions – including a clear and effective anti-bullying policy - that anxiety, frustration and fatigue can be managed. As Jack's mother said, *"Some parents can sometimes take to heart as well what's happening to the children and they just automatically think it's bullying, but a lot of it is the way that school handles it as well isn't it?"*

5.6 Parental attitudes towards school

While there is a certain amount of inter-linking between the themes that have been addressed in this chapter, it is timely to focus in on the parents themselves and understand how they felt about school and the extent to which their child's needs were served. There are two sub-themes in this section:

- Links with the school
- Concerns about transition

While none of the focus children had experienced serious levels of bullying, it became apparent through the exploration of the previous four themes that these pupils were vulnerable to bullying and had had some negative experiences in spite of the efforts of their schools. Nevertheless, all of the parents interviewed were unanimous in their support for the schools their children attended, and part of this appears to be due to the high and consistent levels of communication: e.g. "*They always keep us up to date with what he's been doing. […] They've got a little book that they've been doing for him which is sort of like Robbie's book"* (Robbie's mother); "*You know, anything, anything you want, if you're worried about anything, you can always come in, which is really good"* (Jack's mother). Indeed, communication and transparency may work to reduce levels of bullying or enable them to be acted upon swiftly. The home-school diaries that Robbie and Georgina had demonstrate how daily contact can be sustained without the need to make more formal appointments, allowing both the parent and the teacher to know about any events that could impact on the child's well-being.

This level of communication had a significant impact on the overall level of confidence that these parents had in the schools' ability to do the best for their children. For example, Georgina's mother said:

> *I genuinely think the school have done everything they possibly could, […] everything has been explained to me all the way through, they keep me informed about what is going on they make sure that the lessons she has are appropriate, they look outside the box for things that may work for her*.

This was reiterated by the other parents, with an emphasis on being listened to rather than talked at. Indeed, Robbie's parents made a poignant comparison between the way they had been treated by the local authority assessment centre and the school:

> *I think you felt a little bit at (LA assessment centre) that he was just another autistic child really. […] But it was almost like, yeah, oh well this is wrong with him and that is wrong with him and you've got drugs you can give him or whatever.*

Whereas at the school:

> *I could go to his teacher or his support or even the Head tomorrow and say, 'Samantha I want to do this, can I talk to you about that?' And they'd be open to it.*

This is a clear indication of the importance parents put on having a sense that their child was valued as an individual and given the time and support that was necessary to see the child's needs met appropriately, however challenging they may be.

Nevertheless, despite the parents' overwhelming approval of the schools their children attended, there was a concern that permeated all of the interviews related to transition. This is recognised anecdotally as a difficult time for all children, especially the move from primary to secondary school, but also from year to year, and infant to junior school. For a child with ASD who finds change problematic, it is understandable that these times may be especially difficult and render them more vulnerable.

A poignant illustration of this was given by Georgina's mother who found the transition from year to year had gone well because of the school's understanding of her daughter:

> *They always arrange visits to the classroom, they also do a book every year with photos of where her new toilets and cloakrooms are going to be and where her desk will be and she has a laminated book at the start of each year she has had one. It talks to her about the new class, there is a photo of the new teacher, her new desk, photos of the toilets, photo of where her peg is going to be, so she is all prepared and knows exactly what to expect.*

Robbie's parents were concerned about his transition to the junior school, which although adjacent to the infant school, was a separate establishment. Just as he had settled into the routine of one school, they were worried about the change and also

being vulnerable to the bigger, older children: something which was also expressed by his class teacher. Jack's mother was aware that the transition to secondary school was already on his mind more than a year before the move, and she admitted herself to having "*a lot of angst for that*." Samuel's mother appeared less concerned about the move to secondary school, but this may be because it had already been explained to her that there would be a number of transition visits in advance.

As the only focus pupil at secondary school, Francesca's mother recalled that her daughter had been worried before transition, but that everything had gone smoothly, although she "*was really scared when she started […] She was expecting something worse and then she came and found it quite good actually*." Francesca's anxiety on arrival at the school was also acknowledged by staff, indicating that although the transition had gone smoothly, it was still a very anxious time for the pupil.

It is evident from the parents that while they were content with the efforts and commitment of the schools their children attended, there remained concerns about their future schools. The climate of change, combined with socially vulnerable children separated from their current classmates, could understandably contribute to increased vulnerability to bullying from older pupils.

5.7 Summary statements – RQ3

Five main themes emerged following qualitative thematic analysis of teacher, parent and child interviews concerning five focus children with ASD:

- Adults and children defined and understood bullying differently, and there were indications that bullying increased with age.

- Behavioural problems increased for the boys in response to emotional overload, while the girls experienced fewer behaviour issues. Children's awareness of unacceptable behaviour tended to be poor, resulting in difficult and occasionally dangerous incidents.

- Relationships were more positive with adults than with other children. While the children were able to form some bonds with their peers, these tended to be atypical friendships with lower degrees of reciprocity. A sense of "difference" from peers was felt by three of the older pupils.

- School had an important role to play in making the child's experience of education inclusive. The teaching assistant had a key role in enabling this to happen through appropriate differentiation in both academic and social settings, although there was the risk of pupils becoming over-dependent on them. There was considerable awareness of the children's need for routine and consistency.

- Parents expressed high levels of confidence in the schools and felt fully engaged in their child's education. A strong anti-bullying ethos was seen as critical in successfully reducing bullying in schools. Nevertheless, all parents were concerned about the educational transitions that their children would have to go through in the future.

CHAPTER 6: DISCUSSION

6.1 Introduction

The aim of this study was to investigate prevalence, victim role, risk and protective factors for exposure to bullying among children and young people with ASD. The purpose was to gain a better understanding of these areas in order to inform theory, research, and educational practice, and to feed into the current debate on how to understand the experience of these young people during their school years. The aim in this chapter is to discuss and evaluate the results that were reported previously.

The chapter is divided into four broad sections. The first section provides a brief summary of the findings for each of the research questions. In the second section each of the three research questions are discussed in relation to existing literature, with a thorough analysis of whether findings converge or diverge from other studies. As the study has an embedded mixed methods design, the final part of this section considers the extent to which the qualitative findings complement the quantitative ones.

The third section of the chapter is concerned with the limitations of the study from a conceptual and methodological point of view. Implications of the study and directions for future research are also discussed here. The final section of the chapter provides a conclusion, including a summary of the findings and how the study contributes to knowledge in the field of bullying of children and young people with ASD.

6.2 Restatement of results

RQ1 addressed the prevalence of bullying and the role of the victim compared with other SEND areas of need using teacher and parent-report. Children and young people with ASD were more likely to be bullied according to all three methods of measurement, and in particular were at greater risk of more frequent or severe levels of bullying compared with the SEND average. Parents, however, consistently reported higher levels of their children being bullied than teachers.

In terms of prevalence, three methods were used: nomination, frequency and scale measurement with cut-points. Using the nomination method, pupils with ASD were above the SEND average for both teacher and parent-report, with parents reporting higher levels of bullying than teachers. The pattern was similar for frequency of bullying, with pupils with ASD reported to have above average bullying on a weekly and daily basis compared to other pupils with SEND. Parents reported greater frequency of bullying than teachers. When assessing the bully scale, teachers reported 65.4% of pupils as being victims of some sort of bullying behaviour, while parents reported this for 77.7% of pupils. For both report formats, pupils with ASD were above the SEND average for Moderate and High levels of bullying (and below average for Low levels and 0 scores on the bully scale). It is of note that they had the greatest proportion of Moderate and High levels of bullying compared to any other group according to parent-report.

In terms of role in bullying (victim or bully-victim), teachers and parents reported pupils to be more likely to be victims than bully-victims and this was below the SEND average. However, many more parents of children with ASD (79.3%) reported their children to be victims compared with teachers (56.4%).

RQ2 investigated factors that predicted greater exposure to bullying. This was followed by an exploration of cumulative risk based on the factors that emerged as significant in the additive multiple regression models.

The teacher model was statistically significant, explaining 43% of the variance, with seven of the fifteen variables emerging as significant predictors of an increased *bullying mean* score. These predictors were: higher *behaviour difficulties mean; being in Years 5, 7 or 10;* lower *positive relationships mean; attending a mainstream school;* and *using public/school transport* to travel to and from school. The parent

model was also significant, explaining 38% of variance. Six of the seventeen variables entered into the model emerged as significant predictors of an increased *bullying mean*. These were: higher *behaviour mean; being in Years 5, 7 or 10;* lower *parental engagement and confidence mean;* and *being at SAP* (as opposed to having a statement). Factors that were common to the teacher and parent models were increased *behaviour mean* score and *being in Years 5, 7 or 10*. There was moderate convergence between the *bullying mean* scores reported by teachers and parents, with parents reporting higher mean scores.

The five significant predictors were used in the teacher model to calculate a *cumulative risk* score[24]. This accounted for 29% of variance with the risk of bullying rising exponentially. In the parent model, the *cumulative risk* score comprised four predictors and accounted for 30% of variance, with a linear increase in the *bullying mean* score. In both models the majority of pupils were exposed to between one and three risk factors, with a small number having either all or none of them.

RQ3 explored the phenomenon of bullying from the perspectives of teachers, parents and (three of the five) focus pupils by means of semi-structured interviews. Five main themes emerged that were concerned with the experience of bullying and factors that contributed to vulnerability to it.

Adults tended to have a different understanding of bullying compared to the children. Despite a strong anti-bullying ethos in each of the schools concerned, all of the children had been exposed to lower levels of bullying behaviour, and there were indications that this increased with age. The boys in particular tended to have behaviour problems that were manifested in response to situations provoking high levels of stress and frustration, and in which they felt a lack of control. The girls experienced fewer behavioural issues, although all of the pupils demonstrated a poor understanding of what was appropriate behaviour in certain situations.

Friendship quality was poor for all of the children, despite benefiting from tolerant peers. Three of the older pupils were acutely aware of their difference from peers. Relationships with adults were better overall, largely in response to more predictable patterns of behaviour. Schools tended to understand the pupils and showed an

[24] *Being in Years 5, 7 and 10* were predictor variables, but for the cumulative risk model, they were combined into one risk variable called *Year Group (compared to Year 1).*

awareness of their needs, including sensitivity towards their difficulties, especially with regard to routine and consistency. Teaching assistants often had an important role in the children's lives in school, although there remained a risk of the pupils becoming over-dependent on them at the expense of independence. Parents were satisfied with the schools their children attended and felt included in the key decisions made. A concern voiced by all parents regarded transition to other schools (or phases of education), with the consequential loss of the support systems that had been built up around their children.

6.3 Research question 1: Prevalence and victim role

6.3.1 Research Question 1a: Prevalence

What is the prevalence of bullying of children and young people with ASD according to teacher and parent-report?

i. How does prevalence vary according to the measurement used?
ii. How does this compare to the broader SEND population?
iii. What is the rate of concordance between teacher and parent-reports of bullying for children and young people with ASD?

Measurement

In the current study, two methods were chosen to measure the prevalence of bullying: nomination (bullied or not) and scale (using cut-points). In addition, of those children who were nominated as bullied, a further measure was used to assess the frequency of bullying incidents. The rationale behind this was to acknowledge the on-going debate over measurement of bullying prevalence. For example, prevalence figures for bullying in the general child population vary from 5.5% to 57% (Analitis et al., 2009), and there is concern that this is due to different methods of assessment (Sawyer et al., 2008). Consequently, the aim here was to explore it using different methods within the same study (and with the same participants): something which has not been attempted before in research into bullying of children with ASD.

Nomination: When using the nomination method of simply responding whether a child was bullied or not, teachers of children with ASD indicated that 27.9% were bullied and 72.1% were not. When the same question was asked to parents of children with ASD, 43.3% indicated that their child was bullied and that 56.7% were not. While there is a notable discrepancy between teacher and parent estimates of bullying, with parents reporting much higher levels (see the later section on convergence for a full discussion), it is clear that a substantial proportion of children and young people with ASD were bullied according to this method of measurement, although even with the increased levels in the parent-report, the number remains less than half. This resonates with the NAS report (Reid & Batten, 2006) in which 40% of those with ASD (and 59% with AS) were reported by parents to have been bullied. While it does not discuss bullying in detail, the more recent NAS report *Great*

Expectations (Reid, 2011), again using parents as informants, cites 34% of children with ASD as bullied. It is unclear why the figure has fallen by 10% in the space of 5 years, but it could be indicative of improving conditions in schools.

Nevertheless, the prevalence found using the nomination method yielded far lower levels compared with a number of other studies of children and young people with ASD. For example, using mother-report, Little (2002) found that 94% reported their child to have been bullied, with 74% of them bullied physically or emotionally during the past year. However, participants were recruited from advocacy websites, meaning that the sample may not have been fully representative, as it can be argued that parents of children who have few problems are less likely to resort to using support groups. A similarly high figure was found in Wainscot et al. (2008) using structured interviews with pupils. In this study, 90% of secondary pupils with AS/HFA were found to be bullied, 87% of whom were bullied at least once a week. This very high figure was repeated in the lower but still unusually high levels of bullying noted in the TD control group, of whom 56% reported that they were bullied. However, the low sample size in this study (30 pupils with AS/HFA and 27 TD) and the lack of use of the word "bully" in the questioning may mean that a broader understanding of negative behaviour from others was used by respondents.

Scale: When the scale method of measurement was employed, a very different picture of prevalence emerged. In the teacher dataset, 65.4% of pupils had a positive score on the bully scale, indicating that nearly two thirds of them were exposed to some bullying behaviour from peers according to teacher-report. In the parent dataset, this figure increased to over three quarters at 77.7%, which is closer to the results found in some of the aforementioned studies, such as Little (2002). By using this method of assessment, it could be argued that a large majority of children with ASD are bullied, and indeed this has been proposed in other studies finding very high prevalence levels. These figures can be explored in more detail by examining the proportion of children at each level of bullying (0 score, Low, Medium and High). In the case of both teachers and parents, the largest group of children with ASD with a score on the bully scale were those who had Low levels of bullying, with this figure sharply decreasing for the Moderate and High levels. Although this is a finding that could be expected, there are no studies to date that focus on ASD to explore the differing levels of bullying using this method. Instead, studies have had a tendency to

select a cut-point which dichotomises whether a child is a victim or not. For example, Carter (2009) had five questions related to bullying using parent-report. A single affirmative answer for any of these questions resulted in a child being classed as bullied. Cappadocia et al. (2012) deemed a child to be bullied if there had been at least one incident in the past month.

Frequency: The different levels of bullying can be explored further by investigating the frequency of bullying behaviour (for pupils identified by teachers and parents as being bullied). Similar to the scale method of measurement, in the case of both teacher and parent-report, the proportion of children with ASD who were bullied fell as the frequency increased (from *termly* to *weekly* to *daily*). This trend does not concur with the recent study by Cappadocia et al. (2012), in which frequency of bullying peaked at 2-3 times per week and was at its lowest for just one incident in the past month (11%). It is of note that the trends in the current study are shared by both teacher and parent-report, while Cappadocia et al.'s study relied solely on parents as respondents. The triangulation from having more than one respondent-type strengthens the current findings, although further research is needed to establish whether this trend can be replicated.

Thus it can be seen. that by simply asking respondents to state whether a child is bullied or not, teachers and parents report prevalence levels that are sufficiently high to be a cause for concern without further exploration of results. However, by asking about exposure to bullying using a scale, the results become much more complicated to interpret, as the prevalence level is dependent on the level at which a score can be deemed to be bullying. Does simply registering a score on a bullying scale imply that a child is bullied, or does it need to be at Moderate or High levels (as assessed in the current study) before it can be taken seriously? On a similar note, at what point can the frequency of bullying be understood as sufficient to denote bullying? Is termly enough, weekly, or daily? These questions are in line with those asked by Solberg and Olweus (2003) who criticise many studies for being vague in terms of time-frames and severity of bullying. In their attempt to establish a gold standard measure of bullying, these authors conclude that "two to three times per month (in the past couple of months)" (p. 263) provides an acceptable benchmark by which bullying can be standardised. As noted in Chapter 2, the rationale behind this was that there were large differences found in psychosocial outcomes using this threshold,

compared with the less frequent category. Nevertheless, this study attempted to reconcile prevalence of bullying others and being bullied using a single cut-point. Furthermore, only self and peer-report were used on a sample of children of secondary age. It is therefore questionable whether the same threshold could be applied to teacher and parent-reports that include children in primary and secondary schools.

Nonetheless, while recognising the value of research in this area, it is the author of this study's contention that this cut-point is inadequate to accurately accommodate the wide range of bullying experienced by children and young people, and that to limit it in this way fails to acknowledge the less frequent (or intermittent) but still damaging incidents of bullying that children can experience.

In the case of the current study, prevalence could be cited as ranging from 3.6% (teacher-report from the bully scale of High levels of bullying) up to 77% on the same scale from parents reporting that their child had had some exposure to bullying. It is clear that the actual interpretation of the level or frequency of bullying is critical and has a significant effect on how overall bullying prevalence levels can be assessed, compared with the more simple nomination method. For example, if a child was only deemed to be a victim if he/she was bullied weekly or more often, then approximately half of those originally nominated as victims by parents and teachers would have to be disregarded, meaning that only 12.3% would qualify as victims in the teacher-report and 22% in the parent-report. Higher figures are found in the bully scale when using the Moderate and High levels to denote a victim of bullying (22.4% in the teacher-report and 42.1% in the parent-report), and it is interesting that these figures are much closer to the prevalence levels derived from the nomination method. This variation in prevalence estimates is consistent with the discrepancies found in the general bullying literature (e.g. Dao et al., 2006; Dulmus, Sowers, & Theriot, 2006), and also with research specifically carried out in the UK (e.g. Bowen & Holtom, 2010; Ofsted, 2008). These findings, along with the current study, underline how considerable care must be taken not only when conducting research of this kind, but also in its interpretation. Nevertheless, if results are communicated with clarity, then different levels or frequencies of bullying can still be acknowledged.

The convergence between the nomination method and the Moderate and High levels on the bully scale would appear to offer corroborative support in the present study, suggesting that these two methods may represent more accurate measures. The use of only one item in the nomination method but a number of items in the scale adds to the debate over whether any method can be deemed superior to another. For example, the *Revised OBVQ* (Olweus, 1996) scale contains 39 items whereas the *SDQ* (Goodman, 2001) contains only one specific question about being bullied, and yet both are widely used in bullying research. The fact that a definition was presented in the current study at the beginning of the bullying section of the surveys also means that all respondents were presented with a conceptual definition that gave them the opportunity to be clear about how bullying could be defined. While Vaillancourt (2008) suggested that having a definition may lead to under-reporting, it is more likely that this enables a greater potential for triangulation of responses, especially in the case of the present study which used more than one type of respondent.

Two key issues that have been briefly mentioned, but which warrant further discussion in the assessment of prevalence, are the way in which participants were recruited and the type of informant used. As noted in the literature review, the majority of these studies use parent-reports to measure the prevalence of bullying. However, the recruitment in the NAS studies (Reid, 2011; Reid & Batten, 2006) relied on members of a national charity to participate, making this a potentially biased sample. Similarly, Carter (2009) had a small sample of 34 parents who were recruited through national advocacy websites, making any generalisation difficult. A strength of the current study, therefore, is that there was a large sample drawn from a wide range of parents and teachers. In a similar vein, van Roekel et al. (2010) found variation in bullying prevalence depending on who was asked (30% teacher-report, 7% peer-report, and 17% self-report). Despite having a reasonable sample size of 230, all of the pupils were educated in ASD-specific schools, suggesting that these pupils might be more impaired and therefore less able to identify bullying. Furthermore, as they were with peers with ASD, the differences that often lead to bullying would be less apparent, potentially minimising the risk. In the current study, pupils came from mainstream and special school settings, meaning that the sample is likely to be more representative.

The question therefore remains whether there is an optimum way to measure the prevalence of bullying. In the context of convergence between the nomination method and the scale method (of Moderate and High levels), this would appear one potentially useful strategy. However, it is proposed that measurement should not be overly restrictive or prescriptive, as it runs the risk of excluding harmful incidents that may happen less frequently, or alternatively more frequent incidents of low-level bullying (for example, teasing), both of which can have damaging effects. If studies are transparent in reporting how bullying has been recorded, then there remains the option to retain broader and therefore more inclusive parameters.

Comparisons with the SEND population

It is acknowledged in the literature that bullying is not evenly spread across the population and that some groups of children and young people, such as those with SEND, are more vulnerable to being bullied than others (McLaughlin et al., 2010). Factors that influence this vulnerability in children with ASD are discussed in relation to Research Question 2. However, in terms of prevalence, it is opportune to discuss whether the prevalence levels in this study indicate that pupils with ASD are more or less vulnerable than their peers with different types of SEND. As explained in the chapter on quantitative results, children with SEND were categorised according to four areas of need (DfES, 2001) in order to maintain groups of reasonable size for comparison.

In terms of the nomination method, children with ASD were consistently above the SEND average for teacher and parent-report. This pattern was repeated for the scale method, with more children registering a positive score on the scale compared with the SEND average. When examining the level of bullying and frequency, it is of note that children with ASD were below the SEND average for Low/termly bullying but above it for Moderate and High, weekly and daily levels. This offers compelling evidence to support the argument that children and young people with ASD are more likely than their peers with SEND to suffer more frequent and severe levels of bullying. It is not possible to compare these findings directly with other studies, as there are none to date that explore ASD in relation to all of the other SEND areas of need.

When comparing pupils with ASD with specific SEND areas of need rather than overall averages, a slightly different picture emerges. Although those with ASD are consistently above the average for being the victims of bullying, those with BESD were the most bullied group according to the nomination and scale method, with ASD in second place. These results are perhaps not surprising, as the literature on BESD suggests that these children are frequently bullied because their behaviour is likely to make them less popular with their peers, isolated, and therefore more vulnerable to bullying behaviour from others (Borntrager et al., 2009). Nevertheless, the differences in prevalence of bullying between BESD and ASD tend to be small, and this is consistently the case for teacher and parent-report. The only exception to this is for parent-reports of Moderate and High levels of bullying on the bully scale, where pupils with ASD were the most likely to be bullied, and which is a finding of concern. Further to this, as reported by Osborne and Reid (2011), BESD is a common co-morbidity of ASD, with many children having challenging behaviours (Carrington & Graham, 2001) linked to externalising problems. Therefore, while BESD emerged as the SEND area of need most vulnerable to bullying, this group is likely to have substantial overlap with pupils with ASD. This may explain why pupils with ASD have the greatest prevalence of Moderate and High levels of bullying according to parents.

Convergence between teacher and parent-report

It has become apparent from the preceding discussion that in this study parents consistently reported higher levels of bullying than teachers. This was the case for the nomination method and the scale method (for those children having a positive score on the scale). The disparity was at its most apparent in the High category on the bully scale, with teachers reporting 3.6% of children having these scores compared with 13.2% of parents. A similar trend emerged for frequency, with parents reporting greater prevalence of bullying than teachers at weekly and daily levels compared with termly. While it is beyond the scope of this study to discuss convergence between teacher and parent-reports for other SEND areas of need, it is of note that this pattern was also present for SEND averages, although there are some differences when the areas of need are considered separately.

Once more, it is difficult to directly compare the current findings with the literature, due to the lack of studies to explore differences between teacher and parent-reports

of bullying in the field of ASD bullying. In one of the few studies to compare inter-rater reliability when researching bullying, Ronning et al. (2009) found low levels of agreement, with teacher assessments of bullying better able than parent ones to predict future mental health difficulties. Indeed there is a long history of low levels of agreement between parents and teachers, with Achenbach et al. (1987) noting in a meta-analysis of cross-informant ratings that there was only a .27 correlation between teachers and parents in measures using similar domains to the ones in this study (e.g. behaviour difficulties), although whether parents consistently reported more severe levels of problems is not mentioned. In terms of understanding why these differences exist, it is possible that the lower prevalence reported by teachers stems from an inferior awareness of bullying, due to a teacher's need to take responsibility for all of the children in a class. Parents are likely to be able to devote considerably more time to their own child, know him/her far better than a teacher can, and tend to be more sensitive to their own child's needs.

An alternative explanation is that teachers and parents see children at different times of the day and in very different environments. This finding is in line with Schwartz, (2005), who did not regard low levels of agreement as a necessary weakness, arguing that having multiple perspectives adds breadth and validity to findings. Nevertheless, a teacher may only see a child in the classroom, with other staff supervising children at unstructured times of the day. As the classroom is a more structured and managed environment, it should be less likely that overt bullying takes place there. However, all incidents of bullying should be reported to the class teacher who is expected to have an awareness of the child's experience at school. This is more so in a primary school or special school, where children are with the same teacher most of the time or (in the case of special schools) are in small classes where bullying is more easily visible. The situation becomes more difficult at secondary school, where children have many teachers, may only see their form tutor for a few minutes each day, and have pastoral year heads often with in excess of 100 children whose welfare they are expected to oversee. In such circumstances, bullying may be considerably more difficult to identify and manage.

Further to this, parents have time to spend with their child on an individual basis, making it more likely that the child will discuss any problems or difficulties they are experiencing at school. Even if a child with ASD is less willing or able to talk about

the school day once at home, parents may notice subtle changes in behaviour that indicate that an incident has occurred. This is supported by Reid and Batten (2006) and Moore (2007), who acknowledge that children with ASD may have difficulties identifying when they are being bullied, and so may be unable to report it either at home or at school. In addition, children who are higher-functioning may be able to contain their anxieties and frustrations at school, only for them to emerge once they are in the safer environment of the home (Nordhagen et al., 2005).

A further explanation is that parents do not fully understand the definition of bullying and over-react to a situation that may not be bullying. Nevertheless, in the current study both teachers and parents were given an up-to-date definition of bullying, making it less likely that parents over-reported it based on this type of misunderstanding, although it can never be proven whether the respondents actually read or used the definition. However, as noted in the *Great Expectations* report (Reid, 2011), while there have been some improvements in recent years, parents still feel as if they have to struggle with educational provision for their child, and this may conceivably include dissatisfaction that is reflected in the higher levels of bullying reported by them.

6.3.2 Research question 1b: Victim role

Of those children and young people with ASD who are reported by teachers and parents to be bullied, what is the ratio of victims to bully-victims?

i. How does this compare to the broader SEND population?
ii. What is the rate of concordance between teacher and parent-reports of victim status (victim or bully-victim) for children and young people with ASD?

A large part of the bullying literature focuses on the victims of bullying, although there is a smaller literature that explores the role of bully-victim. While most studies to explore this role-type state that these children are likely to constitute a minority of those who are bullied, they are focused on the general child population and do not take account of specific vulnerable groups such as those with ASD.

Olweus (1993) found that just 1.6% of the pupils in his study could be classed as bully-victims (or 17% of the victims). The extant literature on bully-victims continues to concur with Olweus, suggesting that only a minority of children who are bullied fall into the bully-victim category (e.g. Borntrager et al., 2009; Cook et al., 2010; Haynie et al., 2001). However, the results in this study are not consistent with these previous findings. In the teacher dataset, of those children with ASD reported to be bullied, 56.6% were victims only, with 43.6% deemed to be bully-victims. This trend is reversed when the average across all SEND areas of need is taken into consideration, with more being nominated as bully-victims than victims alone. A similar pattern emerged in the parent dataset, with parents of children with ASD rating their children more likely to be victims rather than bully-victims, although the difference between the groups was much larger than in the teacher dataset (79.3% victims and 20.7% bully-victims). In both the teacher and parent datasets, those with ASD were ranked third out of the five areas of need considered for victim and bully-victim status.

Thus, while children with ASD represented neither the biggest groups of victims nor bully-victims when compared with other SEND areas of need, they were more likely than the SEND average to be victims only and less likely to be bully-victims. In both teacher and parent-report, children with BESD had the highest proportion of bully-victims and those with sensory and/or physical needs were the most likely to be

victims. Nevertheless, as stated by Carrington and Graham (2001) and Osborne and Reid (2011), many children with ASD have challenging behaviours which may be classed as bullying behaviours, whether or not the child can conceptualise the meaning of bullying.

As was the case for RQ1a, there was a large discrepancy in the ratio of teacher and parent-reports of the child's victim role. Even though both types of respondent deemed children with ASD to be more likely to be victims than bully-victims, there was a 22.9% difference in their estimates. There are a number of possible explanations for this. One potential reason is that children are more likely to tell their parents that they have been bullied as opposed to having bullied someone else, as they are likely to be punished in the latter case. It is also possible that a child with ASD is less able to understand that he or she has acted in a way that could be interpreted as bullying. In this context, it is possible that parents are genuinely less aware of their child's negative behaviour. Nevertheless, schools have a duty to inform parents when their child has been involved in bullying, whether as perpetrator or victim, so it is questionable whether this on its own can account for such a large difference in ratings.

Another reason for the lack of concordance is that difficulties related to bullying others in the peer group may be more apparent in the school environment rather than at home, when interaction with peers could be due to a single friend or small group having been invited around selectively. This makes bullying behaviour less likely to take place in the home environment. A third reason for parents reporting their child more often as a victim rather than bully-victim is that being termed a bully is socially less acceptable than being the victim of bullying. While neither role is desirable, being the aggressor in such incidents has far more stigma attached to it.

6.3.3 Summary statements

- Children with ASD experienced high levels of bullying, and this was apparent in every method of measurement. While the amount of bullying decreased as severity and frequency rose, these levels remain of concern.

- Different methods of measurement yielded varying interpretations of bullying prevalence. However, there was some convergence between the nomination method and the scale method (Moderate and High levels), suggesting that these two strategies may provide a more stable measurement.

- Having restrictive measurement may unnecessarily limit the sensitivity of research into prevalence, ignoring the less common but severe incidents and the more frequent mild ones. This highlights how bullying cannot be measured in simple terms and needs to be considered in all its complexity.

- In line with the literature, children with ASD had higher prevalence levels of being bullied compared with the SEND average. When broken into areas of need, children with BESD were the most bullied group, except at the Moderate and High levels on the bully scale for parent-report, where children with ASD had the highest prevalence.

- Compared with teachers, parents reported that more of their children were bullied, and that they were bullied more often and with a greater degree of severity. There are a number of possible explanations for this, but low agreement is not necessarily a weakness in the findings.

- Children with ASD were more likely to be victims than bully-victims, although the ratio was closer than for TD children. Those with ASD were also more likely to be victims than the SEND average, although when explored according to area of need, they were in third place out of five. Parents reported their children to be more likely to be victims than was the case for teachers.

6.4 Research question 2: Risk and protection

6.4.1 Research question 2a: Risk and protective factors

Factors associated with increased (risk) or decreased (protective) levels of bullying of children and young people with ASD:

i. What are the risk/protective factors according to teacher-report?
ii. What are the risk/protective factors according to parent-report?
iii. What is the rate of concordance between teacher and parent-reports of risk/protective factors for bullying?

In this section, findings concerning risk and protection are discussed in the light of the literature. To present these findings in a coherent manner, they are dealt with in a specific order:

- significant predictors common to both the teacher and parent models
- significant predictors unique to one model
- non-significant predictors
- rates of convergence between teacher and parent models

Significant factors common to the teacher and parent models

Behaviour difficulties: Having more severe behaviour difficulties was by far the strongest predictor of being the victim of bullying in the teacher and parent models. In this context, the findings here differ from the general bullying literature, which recognises poor behaviour as a correlate of being bullied in a minority of children, particularly where anger control (e.g. Hampel et al., 2009) and hyperactivity/inattention are concerned (e.g. Brock et al., 2006). Therefore the question arises why behaviour problems should emerge as the most powerful predictor of being bullied in children with ASD.

It is acknowledged that children with ASD are more likely than their peers to have tantrums and violent outbursts, and this is reflected in the disproportionately high levels of exclusions in this group (Humphrey & Lewis, 2008a). Nevertheless, there is debate over the origin and nature of their behavioural issues compared with similar behaviour from peers without ASD. As noted by Macintosh and Dissanayake (2006), the frustration and anxiety that children with ASD are known to experience as a

result of their social impairments may manifest in sudden outbursts, which may be deemed inexplicable or naughty behaviour by parents, teachers and peers. Such apparently unpredictable reactions are difficult for TD peers to understand and may result in children with ASD being ostracised through fear or mistrust (Card et al., 2008).

On a related note, peers may be reluctant to intervene if an aggressive child is being bullied, as there is a risk of getting hurt (ibid.). Consequently an aggressive or unpredictable child is less likely to be befriended by other children. There is the additional risk that if children upset their peers with inappropriate or aggressive behaviour, they may also be categorised as bullies (Borntrager, et al., 2009) and fall into the category of bully-victim. As bully-victims are noted in the literature as being low in social skills and understanding (e.g. Cook et al., 2010), this is yet another similarity in terms of vulnerability that predisposes a child with ASD to being bullied.

An alternative and more sinister reason for behavioural outbursts may stem from other children understanding that a child with ASD over-reacts (compared with peers) in response to certain triggers. Subtle teasing and provocation by peers result in the desired reaction from the child with ASD, which is likely to appear as an unprovoked outburst, leading to serious sanctions being applied, such as exclusion (Humphrey & Lewis, 2008a). Thus, children with ASD often react differently to stress, and while some reach their limits at school, others will react once they reach the relatively safe environment of home, leaving parents bewildered by behavioural outbursts whose aetiology is unknown (Wing, 2007).

Thus, the behavioural problems typical of ASD may follow a different trajectory to those of their peers, but the consequences in terms of punishment and exclusion may be similar. These problems may result in alienation from other children in the class, shunning and isolation, all of which are known risk factors for bullying. In addition, the difficulties of including children with behaviour problems in a mainstream classroom can result in exasperation on the part of the teacher, who may interpret the behaviour as malicious rather than as a result of anxiety and frustration (MacNeil et al., 2009). In this context, it is clear how being bullied can be linked to behavioural

problems resulting from social anxieties, misunderstanding and lack of awareness of appropriate responses.

Year group: Being in Years 5, 7 or 10 emerged as the second most powerful predictors in the teacher and parent models, and although it was necessary to analyse them as separate year groups for the statistical analysis, they are discussed together in this section. It should be recalled that the year groups were compared with Year 1, as initial analyses indicated that this group of children had the lowest levels of bullying relative to the other three year groups. While being in Years 5, 7 and 10 all predicted being bullied, it is of note that the magnitude of the predictive power was not the same in the teacher and parent models. In the teacher model Year 7 had the highest coefficient, followed by Year 5 and finally Year 10. In the parent model Year 5 had the highest coefficient, followed by Year 10 and then Year 7.

What is immediately apparent is that this research is not consistent with the robust finding in the general field of child bullying, that bullying decreases over time (e.g. Bowen & Holtom, 2010; Dulmus et al., 2004; Olweus, 1993). While it is a logical assumption that children may be bullied more by older pupils (e.g. Olweus, 1993), in this study pupils in Year 1 were the least bullied in both teacher and parent-report. When considering secondary school, in which Year 7 is the youngest year group, teachers did report the youngest pupils to be most likely to be the victims of bullying, although parents reported their children most likely to be bullied in Year 5.

There is relatively little research linking the age of children with ASD to bullying, although Little (2002) found that it peaked at ages six, eight and ten, Reid and Batten (2006) reported that it occurred across all age groups, and Kasari et al. (2011) found no group differences according to age (although this latter study only considered children at primary school). Given the large sample sizes and agreement between teacher and parent-report, the trend in the current study for children in Year 1 to be the least bullied is a unique finding that warrants further investigation. A possible explanation is that younger pupils have an increased tolerance towards their peers, because social groupings are less complex and there is a greater tendency for them to accept the difference that older pupils, whose social groupings become ever more sophisticated (Kasari et al., 2011), may not.

Nevertheless, the finding that being in Years 5, 7 and 10 all emerged as significant predictors for bullying in the current study would appear to echo previous findings that pupils with ASD remain vulnerable to bullying over time. This sustained aspect of bullying is consistent with Little (2002) who reported higher levels of emotional bullying at 13, and Reid and Batten (2006) who noted that the impact of bullying is greater as children get older, although they do not mention prevalence levels in older children. This is likely to reflect the tendency for physical bullying to diminish and for the more subtle, but equally damaging, forms of verbal and emotional bullying to increase as children's social groupings become more important in adolescence. For a pupil with ASD who struggles with the social demands of the peer group, this is a key factor that may lead to vulnerability to bullying over time. This is a powerful suggestion that the social difficulties inherent in ASD, which become more apparent over time compared to the peer group, may be a reason why general bullying research cannot be applied to this particular group of young people when age is taken into consideration.

Significant predictors unique to the teacher model

Positive relationships: Relationships with others, especially peers, are central to the understanding of vulnerability to bullying. Having good social relationships has consistently demonstrated a strong association with lower levels of bullying in the general research field, and as such can be classed as a protective factor (Abou-Ezzeddine & Schwartz, 2007; Card et al., 2008). Lack of social understanding (e.g. Garner & Stowe Hinton, 2010), poor peer relationships, including low friendship quality (e.g. Goldbaum et al., 2003), and perceived difference or deviation from the peer group (e.g. Horowitz et al., 2004) have all been demonstrated to increase significantly the probability of being bullied in the general population, indicating that risk and protection are likely to be situated at opposing ends of a dimension where relationships are concerned. These findings are strongly supported in the current study.

As social interactions are one of the key areas of difficulty in ASD, it was expected that this variable would be a significant predictor: this is also consistent with the existing ASD literature that has explored social relationships (e.g. Rotheram-Fuller et al., 2010; Wainscot et al., 2008) and found social support to be inversely related to bullying (Humphrey & Symes, 2010a). Children and young people with ASD

encounter difficulties of varying degrees when engaging in social interactions with peers, and this stems from problems in understanding the social cues and conventions that their TD peers take for granted. This may make the child with ASD appear rude or odd, resulting in alienation from the peer group. Friendships may be harder to form and maintain, and those friendships that do endure are likely to be of lower quality than those found in the TD population (Bauminger, Solomon, Aviezer, Heung, Gazit, et al., 2008). Nevertheless, even these friendships of inferior quality have been found to offer some protection against being bullied (Card et al., 2008), further supporting the risk and protective nature of social relationships found in the current study.

While the marginalisation that can result from poor social interaction may not be a deliberate act on the part of peers, this can lead to the child with ASD being isolated and without recourse to support should bullying begin. However, if disliked or manifesting aggressive behaviour patterns, pupils with ASD may be actively rejected by peers, rendering them even more vulnerable (Cook et al., 2010). As discussed in the context of age, this may be less of an issue when children are very young, but the ever-increasing importance of social groupings and the need to conform to peer-group norms as children grow older is likely to augment a child's vulnerability to bullying.

It may appear somewhat perplexing that this predictor was not significant in the parent model, although there are potential reasons for it. First and foremost is the fact that teachers and parents see children in different environments, with the school context allowing much greater capacity to observe a child interacting with a large number of peers. Any atypical behaviour patterns are likely to be noted by the class teacher during collaborative activities and also by lunchtime supervisors who may notice children who are on their own during unstructured times of the day. In the home environment, parents may only see their child interact with them or their siblings.

Nevertheless, as noted by Koegel et al. (2005), children with ASD are less likely to be invited to other children's parties and play-dates, so it is probable that parents are aware of some of the social difficulties of their child. However, it is still common for children with ASD not to be identified for further investigation until they arrive at

primary school or later (Keenan, Dillenburger, Doherty, Byrne, & Gallagher, 2010), suggesting that parents may not have been fully aware of their child's symptoms: this lends further support to the rationale for not finding a significant association in the parent-report of positive relationships.

Type of school attended: Attendance at a special school emerged as a protective factor in that it had an inverse relationship with the *bullying mean* score. While this is an interesting finding in the context of the inclusion debate, caution must be exercised when drawing conclusions, especially regarding the increased risk of bullying in those attending mainstream schools. While parents reported that incidents of bullying were dealt with slightly more effectively in mainstream compared to special schools according to Reid and Batten (2006), van Roekel et al. (2010) found levels in an ASD-specific school that were similar to those found in general education, although they did not have a control group for comparison. A number of potential reasons for the finding in the current study are presented below, and in light of the fact that up to 70% of children with ASD now attend mainstream schools (DfE, 2010).

One aspect of special education that may serve to minimise bullying is the fact that class sizes tend to be much smaller, with a higher ratio of specialised teaching and support staff who are likely to have received additional training in SEND (Reid, 2011). This greater presence of adults may serve to reduce opportunities for bullying. Nevertheless, this may also be the case in mainstream schools, in particular those with resourced provisions that have specialised staff and areas where vulnerable children can spend unstructured times of the day. However, in many cases, children with ASD are integrated into mainstream classes without dedicated additional provision at the school level. A further difficulty in mainstream schools, especially in the secondary sector, is that the staff may lack the expertise to adapt to teaching children with particular needs. In the case of children with ASD, this additional understanding may need to extend beyond academic work (in which they may excel) to include training in social skills.

Children in special schools may be perceived as less different from their peers, in that they all have statements indicating that they require significant levels of support. Nevertheless, it should be acknowledged that even in a special school the level and

types of needs of the pupils will vary greatly. Children in mainstream schools may also have statements, in which case they have an entitlement to additional levels of support. In the current study, children with statements were the largest group, containing almost 50% of the pupils, with 40% at SAP and 10% at SA. This means that the 50% of pupils without statements are likely to receive less support, especially during unstructured times of the day. This may lead to increased opportunities for them to be bullied if the school is not aware of the child's potential vulnerability.

If a child attends an ASD-specific school, then differences from peers will be further reduced, perhaps reducing the number of risk factors that predispose a child to bullying. In a mainstream school, where the majority of pupils are TD, the differences of a child with ASD may be much more apparent, once more predisposing them to being bullied if sufficient measures are not put in place by the school to guard against it.

Similar to *positive relationships*, it is of note that *type of school* attended did not emerge as a significant finding in the parent model. This could be an issue concerned with sample size, as there were only 16 pupils in the parent dataset who attended special schools. Nevertheless, this difference in significant findings is worthy of further exploration using a larger sample size, particularly in the light of Reid and Batten's (2006) finding that children in mainstream schools were more likely to have been bullied according to parent-report. Thus, the small amount of existing research in this area is at best inconclusive, and it is of note that, apart from the current study, there are no studies to explicitly compare rates of bullying across settings for children with ASD.

Use of public/school transport: While only a marginally significant finding, *use of public/school transport* as a risk factor for bullying is of considerable exploratory interest, as it is an unstructured part of the day, during which time there is minimal adult supervision. In this context, it is therefore surprising that there is remarkably little existing research, and none specifically in the field of ASD other than a reference in a qualitative study to two parents whose daughters had had a problem on the school bus (Carter, 2009). The research (also qualitative) conducted by Raskauskas (2008) in the US suggests travel to and from school using school

transport is likely to be a problem, and the finding in the current study supports this, although only in the teacher model. A particular strength of the current study is that the findings are drawn from quantitative analyses, thereby using greater numbers of participants of different ages, in different schools and areas of England.

However, the lack of corroboration in the parent model does raise questions, especially as children arriving home after having been bullied on the bus or train may still be upset and therefore inform a parent of the incident. Alternatively, this lack of communication to the parent may stem from a lack of awareness or understanding of bullying as noted in the literature (e.g. Moore, 2007). In this context, it is feasible that another pupil may inform school staff that a pupil has been bullied on the way to school rather than on the way home. In addition, the absence of this finding in the parent model could simply reflect the fact that parents did not feel that this was an issue for their child.

Another potential explanation for this finding not being replicated in the parent analysis could be because this dataset was unable to detect medium and small effect sizes. This limitation could potentially be applied to all of the findings that were significant only in the teacher model and is discussed further in section 6.7.

Significant factors unique to the parent model

***Being at School Action Plus*:** This is a finding of great interest, as it concerns an area that has not been explored in the context of any SEND groups, let alone ASD. While pupils with ASD having a statement represent almost half of the parent sample, those who were at SAP had a significantly increased risk of being bullied. Although the criteria that exist to qualify a pupil for a statement or SAP are not rigidly defined (Ofsted, 2010), a distinguishing factor between the two categories is the level of support provided to the child. At SA and SAP the level of support is decided by the school and it does not attract external funding, whereas with a statement, the level of support is agreed at local authority level and written into a legally-binding document. Thus, while a pupil with a statement of educational needs may be entitled to the support of a teaching assistant for a specific number of hours during the school week, this support is less likely to be in place for a child at SAP. Furthermore, a child at SAP may be awaiting or undergoing assessment for a statement, indicating that the child's needs may be even greater. However, the

assessment progress can be lengthy, meaning that a pupil who will ultimately be awarded a statement, may spend months or years awaiting support that is desperately needed.

In this context, it is clear that children at SAP present as a vulnerable group, regardless of their SEND-type. The vulnerability of children with ASD that stems from social difficulties may therefore be intensified by insufficient support in school. For example, as noted by Samson et al. (2011), while in the classroom a child who is struggling academically or socially may be ridiculed by peers or left isolated, making it easy for a bully to act. At unstructured times of the day the lack of direct support from adults may leave the child exposed to playground bullies, because he or she is alone or does not understand how to engage in the social activities of the peer group (van Roekel et al., 2010). This may be especially problematic in secondary schools, due to the larger numbers of pupils and the potential for more places to bully in a physically bigger school environment.

An additional point to note is that pupils at SAP may still be seen as different by their peers, but not sufficiently impaired to qualify for the statement that would afford them increased adult support. In this context it appears that children with ASD at SAP run the risk of falling into a gap left in the SEND system that leaves them vulnerable to bullies.

Nevertheless, this finding was not replicated in the teacher model, and this raises some questions about why this may be the case. Teachers have a duty to know the needs of the children in their class and to differentiate work accordingly. However, it is possible that this task is made more difficult by the lack of additional support for a pupil at SAP. This is supported in the literature by Griffin and Gross (2004), who found that teachers varied in their attentiveness to bullying, and that relational bullying is much more difficult to identify compared with the physical forms. It is also possible that children at SAP are more functionally independent than those with statements, and so may be more able to understand bullying and also inform a parent than those with a statement. Linked to this is the fact that the overwhelming majority of pupils at SAP attend mainstream schools, as a statement is normally a prerequisite for admission to a special school. As noted in the previous section on teacher-

specific predictors, attending a mainstream school was associated with higher levels of bullying.

Parental engagement and confidence*:* This variable was unique to the parent survey and so cannot be compared with information from the teacher one. As parental engagement and confidence increased, so the risk of the child being bullied fell. This could be interpreted as being a protective factor against bullying, but it is more likely that it is indicative of the relationship that a parent has with the school. One possible interpretation of this is that parents are more confident and engaged in a school where their child is not bullied, as opposed to those with a bullied child who are unlikely to be satisfied with the school.

There is no published research that has explored the relationship between this variable and being bullied, but the findings in the current study are consistent with Card et al. (2008) who speculate that this link is likely to exist amid the more complex factors that come into play when a child is bullied. This finding in the current study is also in accordance with research by the NAS (Reid, 2011; Reid & Batten, 2006) which found that parents of children with ASD place a high value on trust and good communication with their child's school. While this finding is likely to be true for all parents, it is worth noting that parents of children with ASD are known to struggle with the education system and are the most likely to challenge decisions at educational tribunals (Reid & Batten, 2006).

Non-significant predictors

Although the following variables were non-significant in the teacher and parent models, they were all included for theoretical reasons identified in the literature review. While the greatest attention must be paid to the significant factors, it is nevertheless pertinent to consider briefly the possible reasons for the non-significant findings.

Gender: A relatively robust finding in the general bullying literature is that boys are more likely to be bullied than girls (Cook et al., 2010; Hanish & Guerra, 2000), as they tend to interact more aggressively with each other. However, these findings become less marked when indirect and relational bullying are taken into consideration (Borntrager et al., 2009), with Dao et al. (2006) suggesting that the differences may disappear in older children. Research into children with ASD has

tended to support the finding that boys with ASD are more likely to be bullied than girls, although it has been made more difficult due to the greater incidence of boys with ASD compared to girls. In the current study, there were only 102 girls (620 boys) in the teacher sample and 21 girls (98 boys) in the parent sample, and so these low numbers are a possible reason for the non-significant finding. It is also possible that there was no difference and that girls, due to their increased social difficulties, are no less likely than boys with ASD to be bullied. Alternatively, it remains possible, that in line with some current theories (e.g. Borntrager et al., 2009), there is no difference in bullying once all the different types are taken into consideration, and that girls with ASD are bullied just as much as boys regardless of their social difficulties.

***Being at School Action**:* Given that *being at school action plus* was a significant predictor for bullying in the parent dataset, it may come as a surprise that the lowest level of support was not significant. Nevertheless, there are possible reasons for this. First of all, those at SA are the smallest group of children with ASD: this is likely to be because ASD is a clinical diagnosis, and so the majority of these children have a statement or are at least at SAP for the additional provision that they need in school. Therefore, it is possible that a child at SA may not require much support because he or she has already integrated well and is not seen as sufficiently different to be vulnerable to bullying. Alternatively, due to the lower levels of support these children get, it is feasible that teachers are less aware of any bullying that is taking place. However, if this were true, then it would be more likely that parents would have reported bullying, which was not the case.

***Wider participation**:* It is of note that this predictor was unique to the parent survey and so the sample size was relatively small compared to the teacher one. While it could be expected that children attending additional activities would have higher levels of school connectedness (McNeely et al., 2002), Olweus (1993) observed that the less structured nature of some extra-curricular activities may increase opportunities for bullying. The absence of significant findings in this study may reflect the smaller sample size, or it could indicate that few pupils with ASD actually participate in the wider life of the school because they feel socially excluded, or simply that they do not wish to participate in activities that are often more socially

oriented. In this context, additional research would be useful, as development of social skills is an important area for children with ASD.

Academic achievement: Findings linking being bullied with low academic achievement are inconsistent and inconclusive in the general bullying literature (e.g. Cook et al., 2010; Woods & Wolke, 2004), although it is reasonable to suggest that a bullied child who is unhappy at school is unlikely to perform to his or her potential. While some studies have found an association (e.g. Green et al., 2010 found bullied pupils to have lower GCSE grades), Beran (2009) suggests that it is only present in conjunction with other factors, meaning that this may be another extremely complex area to understand. Nevertheless, the lack of findings in the current study are not echoed by Reid and Batten (2006), who reported that the achievement of 40% of children with ASD had been adversely affected by bullying (according to parent-report). Similarly, Green et al. (2010) found that nearly half of pupils with ASD aged 14-16 had difficulties in numeracy and literacy compared with their peers. However, the lack of significant findings in the current study resonates with Humphrey and Lewis's (2008a) suggestion that apparent academic success at school does not necessarily mean that a child is coping socially or is not bullied. Many children with ASD appreciate the stability and structure of the classroom, and may therefore perform appropriately in academic terms, while having significant problems outside the classroom. This is an area that warrants further investigation.

Attendance: That a bullied child is reluctant to attend school is a sentiment that has found support in the general bullying literature (e.g. Smith et al., 2004), although there has been little research in this area in relation to children with ASD. Of the limited research available, this study supports Wainscot et al. (2008) who found no difference in attendance between children with ASD and their TD peers, despite finding that children with ASD were more likely to be bullied. Reid and Batten (2006), however, reported that 30% of children with ASD had refused to go to school as result of being bullied. A possible explanation for the lack of significant findings in the current study is that that attendance is more closely monitored in schools these days, and that there are fewer opportunities for a child to remain persistently absent for legal reasons. In addition, as previously suggested, having a good level of attendance does not mean that a child is not bullied or socially accepted.

FSM eligibility: While it is reasonable to assume that a child of ostensibly lower social status could become the target of bullying, perhaps because of inferior clothes or coming from a poorer social area than peers, this was not found to be the case in the current study. Although some studies have found tentative links between low SES and being bullied (e.g. Bowen & Holtom, 2010; Due et al., 2009), the lack of a significant finding here is in line with Olweus' (1993) research and also UK-based studies and reports (e.g. DCSF, 2008a; Whitney & Smith, 1993) in which no associations were found. There are several possible reasons for this, the main one being that SES on its own is insufficient to account for being bullied, and that it depends on other factors, such as the relative wealth of an area, the proportion of other children receiving free school meals and school ethos.

As pupils with ASD constitute a tiny minority of children in mainstream schools (and some schools may have no identified pupils), this may make it a particularly tricky area to explore, due to the many other variables that are at play in the risk of being bullied. Nevertheless, the proportion of children eligible for free school meals was very similar in the teacher and parent datasets, representing approximately a quarter of the sample, and the finding that there was no significant association lends support to the argument that this is not a meaningful predictor of bullying for these children.

Ethnicity: Ethnicity has attracted attention in recent years as a potential risk factor for bullying, particularly in the light of racist attitudes and high-profile government campaigns. However, similar to FSM-eligibility, research findings have been inconsistent, and it is likely that ethnicity is confounded or mediated by other variables such as the racial mix in a school (Frederickson & Cline, 2009). The proportion of children who were not from white backgrounds was close to national averages in both the teacher and parent datasets, making the findings here representative and providing support for the contention that race is not a risk factor of importance. This is the first study to explore ethnicity and risk in children with ASD, and it is of note that it supports the trend in the general bullying field.

***Urbanicity*:** Although it has been suggested that there are likely to be higher levels of violence in urban schools, this is an area in which no clear differences have been found (e.g. Nansel et al., 2001), and the current study is in keeping with this. Similar to the suggestions made in the previous two sections, it has been suggested that the

reason for the lack of findings is because there are so many confounding factors at play, such as ethos and the organisational structure of the school. It is therefore the author's contention that this predictor and the two preceding ones are too complex to be explored in their current format, and that further research will need to assess potential confounding factors before meaningful findings can be obtained.

Rate of convergence between the teacher and parent models

Parents reported higher levels of bullying than teachers, and this has already been explored in the discussion of RQ1. However, it is pertinent to explore the correlation between the parent and teacher models in the context of RQ2a, as this is specifically concerned with prediction of bullying according to a number of variables.

There was a significant moderate correlation of .32 between the parent and teacher models that exceeds that of the average of .27 found by Achenbach et al. (1987) in their meta-analysis of studies. There are three points that emerge from this. First, the higher level of agreement may indicate that there are greater or more effective levels of communication between parents of children with ASD and teachers, leading to a closer understanding of any problems that arise due to bullying. As noted in the section on parental engagement and confidence, this group of parents is known to struggle with the education system in terms of obtaining appropriate provision for their child, and this may mean that parents spend more time with their child's teacher and are consequently more aware of issues. Second, the communication difficulties associated with children with ASD may also necessitate higher levels of communication between home and school. An example of this is use of home-school diaries that allow parents and teachers to be in daily contact and to inform each other of any events that may impact on the well-being or behaviour of the child (Hebron & Bond, 2012). Finally, it is possible that teacher-parent levels of communication have improved over time, and that this is reflected in the higher level of concordance.

Nevertheless, while it is of interest that the concordance between teachers and parents is higher than average in this study, it should be remembered that a lack of it is not necessarily a weakness, because teachers and parents see children in different experiential contexts (Schwartz et al., 2005). The fact that the level of correlation is not higher is likely to reflect this, and may also explain why some of the significant predictors were shared but others were unique to the teacher or parent models.

6.4.2 Research question 2b: Cumulative risk

Cumulative risk according to teacher and parent-report:

i. Is the risk of being bullied predicted by a cumulative increase in risk factors?
ii. What is the relationship between the number of risk factors and the risk of being bullied?

The risk model that was discussed in the preceding part of this research question was additive in nature and had the advantage of being able to assess the relative strength of each predictor when controlling for the others (Field, 2009). As noted by Appleyard et al. (2005), the cumulative risk hypothesis is concerned with the number of risk factors, which are all considered equal. It is the author's belief that a consideration of both models adds a further dimension to the study of bullying of children and young people with ASD. This is of particular use, as there are few studies in the literature that specifically consider being bullied as the outcome when enumerating risk variables (although it has frequently been used as a risk variable for other outcomes, such as mental health). In research into bullying and ASD this is the first study to investigate the effects of cumulative risk, and as such must be considered exploratory.

Cumulative increase in risk factors

A number of similarities were found between the teacher and parent models and these relate to the cumulative increase in the risk of being bullied. In both models, the *cumulative risk* variable had a positive association with the *bullying mean* score, indicating that it was a significant predictor of bullying. Furthermore both models demonstrated that the mean bullying score rose steadily with the addition of each risk factor. This is consistent with the cumulative risk hypothesis (Appleyard et al., 2005).

In both the teacher and parent models, the majority of children had between one and three risk factors, with a peak at two. A small minority of children had no risk factors at all, with similarly small numbers having the maximum number of risks. This demonstrates that in this particular study, children with ASD were likely to be exposed to a number of risks that were directly associated with an increase in being bullied. Further research is needed to investigate whether similar results can be

obtained with different predictors and also a larger number of them, as has been attempted in other psychologically-based studies (e.g. Lima et al., 2010).

Relationship between the number of risk factors and being bullied

The parent model indicated that the overall rise in bullying risk was linear in nature. This means that as the number of risks increased, so the mean score on the bully scale rose in a proportionate manner. Nevertheless, when looking at the increase in the *bullying mean* score as the number of risks accumulated, the biggest increase was from two to three risks, and there was evidence of the beginning of a plateau effect from three to four risks. Although there was a maximum of four risk factors in this model, it is possible that if more had been found to be significant and therefore included, there may have been a saturation effect, indicating that beyond a certain number of risk factors the actual level of bullying no longer increased. As there is no related research in this field, the findings in the current study offer preliminary indications that a child needs to be exposed to relatively few risk factors before the level of bullying increases dramatically, with the increases not incrementally equal. This is consistent with findings that date back to Rutter et al.'s (1975) seminal study of adjustment problems and numerous psychological studies since.

There were similar unequal increases in the teacher model, with the biggest increase in bullying scores between three and four risks. Unlike in the parent model, there was only a slight reduction in the increase of scores from four to five risks, showing no evidence of a saturation effect. Nevertheless, the teacher model differed from the parent one in that the overall accrual in bullying demonstrated an exponential (or quadratic) increase. This indicates that the levels of bullying rose in a manner that was disproportionately high compared with the number of risk factors to which children with ASD were exposed. This is a worrying finding, suggesting that large increases in the likelihood of being bullied may result from subtle increments in the number of risks, and which may go unnoticed, especially in the school environment.

The differences in the teacher and parent models in the relationship between risk factors and being bullied could lie in the much smaller numbers in the parent dataset, making the model less sensitive. It is also of note that the parent model contained one fewer risk than the teacher one, making direct comparisons more difficult to make. Nevertheless, in exploratory terms, the findings in the current study present evidence

to suggest that there is a cumulative relationship between the number of risk factors and being bullied, and this is lent further support in the light of findings that are shared between the teacher and parent models.

Additive risk and cumulative risk

A comparison is worth making between the additive models used to assess risk and protection in RQ2a and the cumulative models in RQ2b. Each type of model has its own unique advantages and disadvantages (which were briefly discussed in section 1.5.1 of the literature review), but it was the intention in the current study to use them in a complementary rather than competing manner in order to contribute to the overall findings.

In the case of both the teacher and parent datasets, the additive model predicted greater variance than the cumulative one (43% versus 29% for teachers, and 38% versus 30% for parents), making it a more powerful predictor of bullying. The advantage of the additive model in the current study was that a large number of variables were able to be investigated. Nevertheless, while many of them were not statistically significant, it is likely that there were some interactions between them that resulted in a higher overall amount of variance being explained. In the cumulative models on the other hand, only the significant predictors found in the additive model were used, meaning that any additional relationships found between variables that contributed to the overall variance could not be acknowledged.

The finding that both measurement models were statistically significant is indicative that they made a meaningful and thought-provoking contribution to the current study. Although the additive model has been reported to produce more powerful findings than the cumulative one, the literature remains inconclusive in this area (Flouri & Kallis, 2007). Therefore, additional research specifically into the cumulative risk of bullying of children and young people with ASD is warranted in order to enrich the overall understanding of bullying in this group.

6.4.3 Summary statements

- The strongest predictors in both models were also shared risk factors and related to *behaviour mean* and *year group*. While findings related to increased behaviour problems are consistent with the literature, the underlying triggers may not be the same for children with ASD. In addition, there were differences in some age-related patterns of bullying.

- Several predictors for being bullied were unique to either the teacher or parent model. There are potential explanations for all of these, with the different environments in which parents and teachers encounter children likely to play an important part.

- There were a number of predictors that were not significant in the parent and teacher models. These were discussed in the context of the literature, with the finding that many share their inconclusive findings with the general bullying literature.

- Parents reported higher levels of bullying than teachers, but the correlation between the two models was moderate and above average for parent-teacher convergence in the literature. This suggests that parents and teachers of children with ASD may have a closer collaborative relationship than parents of other groups of children.

- Cumulative risk provided an interesting alternative approach to the risk of being bullied, with many similarities emerging between the teacher and parent models. However, an exponential increase in bullying was found in the teacher model, whereas a linear relationship was found in the parent one.

- The additive risk model explained a greater amount of variance than the cumulative one, although both are of value in the exploration of bullying risk, and they should be seen as complementary rather than competing models.

6.5 Research question 3: Perspectives on bullying

> What are the perspectives of key stakeholders around prevalence, victim role, risk and protective factors associated with bullying of children and young people with ASD?

In this section, the five themes that emerged from the qualitative phase of the study are discussed in relation to the literature. Due to having both quantitative and qualitative elements, there is some overlap in references to the literature, although unnecessary repetition has been avoided where possible. Integration of the findings is discussed in the next section of the chapter.

The experience of being bullied

None of the five pupils in the qualitative study had been subject to severe levels of bullying, and this finding was consistent between teachers, parents and, where applicable, pupils. Nevertheless, it was apparent that all except Robbie had experienced some behaviour that could be interpreted as bullying from peers. This is a particularly disturbing finding, as it suggests that low levels of bullying may be a common reality for these children. While no studies have suggested that all children with ASD are bullied (and it must be remembered throughout that there were only five focus pupils in this strand of the study), the findings here are consistent with some of the higher estimates found in the ASD literature. For example, Little (2002) reported a figure of 94% (mother-report), and Wainscot et al. (2008) were only slightly lower with a figure of 90% of secondary school pupils with AS/HFA (self-report). However, this prevalence level is substantially lower in other studies (e.g. Reid & Batten, 2006) and even some of the quantitative findings in the current study. This variation may reflect the fact that research into ASD and bullying is still in its infancy, with the few extant studies taking place under differing conditions, including a range of respondents, different measures and a combination of quantitative and qualitative approaches. Alternatively, it is possible that only qualitative research has the sensitivity to pick up on the more subtle aspects of bullying found in this strand of the study. This would then be consistent with Humphrey and Lewis's (2008a) finding that most pupils interviewed reported some exposure to bullying. Furthermore, many quantitative studies have strict criteria governing what can and cannot be classed as bullying, whereas a qualitative

approach can examine each case in its own right and acknowledge the unique conditions and effects.

Only one pupil had not knowingly been subject to any bullying, and this was the youngest pupil whose parents felt that he would not be able to understand it. There were, however, indications that negative incidents that could be interpreted as bullying increased in prevalence as the children grew older. This is contrary to the general bullying literature that has found that it tends to diminish with age (e.g. Bowen & Holtom, 2010), but is more consistent with the ASD literature that finds fewer differences over time (Little, 2002; Reid & Batten, 2006), especially when non-physical forms of bullying are included. Parents and teachers both felt that the children were protected from bullying to a large extent by having tolerant and accepting peers, who had known them for a long time. This is consistent with Brewin, Renwick and Schormans (2008) who found the peer group to be more accepting when they are aware of the difficulties of children with ASD. However, this tolerance may begin to wane as the children get older, and there are signs of marginalisation that is not necessarily malicious, but may simply represent an increasing gap in levels of social and emotional maturity. This resonates with findings in the bullying literature that social groupings become more complex as children get older (Locke et al., 2010), with children who do not conform to in-group expectations consequently more likely to be excluded.

In terms of understanding bullying, the ability to define it did not necessarily equate to a conceptual understanding of it. This is consistent with other studies that have questioned the level of understanding that some young people with ASD have of bullying and other social interactions (Moore, 2007). The findings in this study therefore pose serious questions about the way in which children with ASD are taught about bullying: it would appear that explanations alone may not be sufficient for the child to apply this understanding to his or her own circumstances, potentially rendering useless some anti-bullying strategies. Also noteworthy and of concern were parent and teacher interpretations of what actually constituted bullying. This was unclear other than for blatant episodes that were easy to define, but there was less clarity regarding lower levels of unkind behaviour such as teasing that can still have seriously detrimental effects on some children. These difficulties in definition are common features of all bullying literature and consistent with other studies that

have found differing understanding and attitudes among adults (e.g. Ellis & Shute, 2007). This study therefore adds to the debate over the point at which bullying should be recognised as such, including deliberations over whether teasing should be included (Horowitz et al., 2004). It is the author's contention that maliciously intended behaviour that causes harm to another child should be included under this definition, even if it may seem minor to observers: ultimately it is the effect on the individual that is of importance: something that is notoriously difficult for the adult observer to judge.

Patterns of behaviour

It is not surprising that issues with behaviour emerged, given the strong associations in the ASD literature (e.g. Carrington & Graham, 2001; Macintosh & Dissanayake, 2006). However, in the current study there was a division between boys and the girls, as the girls had few specific behavioural issues, whereas they were present for all of the boys, albeit to differing degrees. In terms of the behavioural difficulties manifested by the boys, there was no evidence to suggest that there was any malicious intent that could be construed as bullying of others. It would appear from parent, teacher and (where applicable) pupil information, that behavioural outbursts were in response to specific triggers which were often linked to anxieties and frustrations. This is entirely consistent with the ASD literature that has found that the everyday experience of school can be extremely stressful for pupils with ASD (Morewood et al., 2011), and in particular in light of sensory difficulties (Reed & Osborne, 2011), a preference for routine and predictability (Humphrey & Lewis, 2008b) and a bustling social environment (Wing, 2007). When these needs are violated in the eyes of the child, the anxieties that result may become overwhelming, leading to outbursts and tantrums that can be dramatic and frightening for others, and can also lead to these children being seen as aggressors.

The two girls exhibited much more passive behaviour patterns and had not experienced significant behaviour difficulties. One girl's apparent manipulation of others is likely to stem from a need to retain control, and as in the case of the boys, there was no indication of malicious intent. This gender-related behaviour, despite being based on only two pupils, is once again consistent with some emergent literature that focuses on the gender differences in presentation of ASD (Attwood, 2007; Roth et al., 2010). Until recently, it was believed that there were relatively few

cases of females with ASD, however, recent research has found that girls tend to present differently from boys, and one manifestation of this is in lower levels of behavioural difficulties (Attwood, 2008). The reasons behind this lie beyond the scope of the current study, but may be linked to hormones and also gender differences in societal expectations (ibid.).

One area that united all of the focus children was difficulty in understanding acceptable behaviour in social contexts. Given that social difficulties lie at the core of ASD, it is understandable that these children found negotiating the complex social world confusing at times. This was seen in the case of one boy who regarded himself as a sensible pupil, despite reports of periodic violent outbursts that had resulted in exclusion. This was also clearly demonstrated in another pupil's inability to choose an appropriate moment to speak out. The findings in this study are once more consistent with the literature that describes the on-going difficulties in negotiating a social world whose rules everyone else seems to understand instinctively (Smith-Myles & Simpson, 2001). The potential link to bullying is easy to make in these cases, as atypical behaviour patterns, unpredictable reactions and inappropriate responses to situations serve to distance these children from their peers, rendering the formation of friendships more challenging, and leading to the isolation and marginalisation associated with vulnerability to bullying (Laine et al., 2010)

Relationships

The behavioural differences described in the previous theme are aspects of the focus children that may make them stand out as odd or different from their peers, and this resonates with the literature regarding relationships (e.g. Bauminger, Solomon, Aviezer, Heung, Gazit et al., 2008; van Roekel et al., 2010). Indeed, in this theme the characteristics of the pupils' relationships with others are very closely linked to findings in the ASD literature.

All of the children in this study were perceived to have positive relationships with adults, and this was not limited to teachers but also teaching assistants and other staff whom they encountered around school. This positive rapport with adults is not something that is often noted in the ASD literature, as it tends to focus predominantly on peer interactions. There are a number of reasons for these positive relationships with adults that resonate with the characteristics of ASD. The main reason is that

adults, especially in school, are expected to behave in a fair and consistent manner towards all children. While this is certainly not true for every adult that children encounter, in school they are likely to provide a stable and consistent environment that is concordant with the needs of a child with ASD. Thus, the trust built up over time was very important for some of the pupils in the study, whereas for others it was the fact that the adults knew and understood them that was valued highly.

The current study is consistent with findings in the ASD literature that close bonds tend not to be formed with the peer group. For example, friendships – if they are described at all – are either of relatively poor quality (i.e. one boy's friendships revolved around a mutual interest in football) or involve just one other pupil. This is reminiscent of the studies conducted on friendship by Bauminger and colleagues (e.g. Bauminger & Shulman, 2003; Bauminger, Solomon, Aviezer, Heung, Brown, et al., 2008; Bauminger et al., 2010). Large friendship groups were not a feature in the lives of these children, and this is in keeping with the nature of social difficulties which they have. Nevertheless, those children who did manage to form friendships clearly found them enjoyable and were keen to maintain them: this may protect against bullying, as has been suggested by Humphrey and Symes (2010a, 2010b). Therefore, in finding friendship challenging but also demonstrating a desire to form and maintain friendships, most of the focus children revealed behaviour patterns that are consistent with the literature. Indeed, in showing a preference for friendship, this study adds further evidence to the argument that, contrary to past beliefs inspired by Kanner's (1943) seminal work, these children do not wish to remain aloof and isolated from peers, even if the quality of their friendships remains different in nature, rather than necessarily inferior (Bauminger et al., 2010). Some of this desire may come from the fact that the majority of children with ASD are now integrated into mainstream schools (including all of the focus children in this study), suggesting that greater exposure to TD children may encourage those with ASD to explore friendships.

Being in a mainstream setting can exacerbate the sense of difference from peers that many children and young people with ASD feel, and this was noted in all of the focus children except the youngest. This is widely acknowledged in the literature: for example, Humphrey and Lewis (2008a) reported on the acute awareness of difference expressed by secondary pupils, and Bolman (2008) described how a

young man with AS became increasingly depressed as his awareness of difference from peers grew. While Humphrey and Lewis (2008a) reported on secondary school pupils, it is of note that three of the four primary school pupils showed an awareness of this, although in keeping with the literature they were unsure what to do about it (ibid.). It is this mismatch between awareness and the knowledge of what to do that makes these children potentially less appealing to the peer group, and consequently more vulnerable to bullies.

School's role in managing the child's vulnerability

While it is acknowledged that ASD, as a developmental disability, carries with it a number of difficulties at the level of the child, it is of note that parents commented favourably on schools' efforts to include their child and make their overall experience as positive as possible. This adds support to those within the inclusion debate who argue that it is feasible to integrate children with ASD into mainstream schools, provided that each case is judged individually, rather than resorting to blanket decision-making (Cigman, 2007; Guldberg, 2010). In the current study, it was clear that considerable effort had been put into supporting the children, to the extent that they felt part of the school community, and this was apparent across the age range. This finding is consistent with studies that have emphasised the importance of the school in optimising the environment and providing a flexible approach (e.g. Morewood et al., 2011; Wing, 2007) that provides the necessary levels of structure and predictability. Although this is still unlikely to be found in all schools, the findings in this study contribute to the argument that, with the right training and approach, it is possible to educate most children in a mainstream setting, and that the demands made on teachers to offer increased levels of differentiation (and which should be integral to any teacher's skills) are largely realistic.

While teaching assistants provided excellent levels of support to the children, it was encouraging to note that schools were aware of the importance of not becoming overly dependent on the support, and that independence should be promoted. This is consistent with Emam and Farrell's (2009) findings that teachers value teaching assistants, and it is reassuring that there were no indications of teachers feeling that the children became alienated from the rest of the class because of this support.

Support with social skills was seen to be of great importance and all of the schools were working to address the social difficulties with which the children presented. While it is impossible to know the extent to which the children had benefited from interventions, the inference from the literature is promising, suggesting that social skills strategies can have positive effects (Brewin et al., 2008; Rotheram-Fuller et al., 2010). This also supports findings that suggest that just putting children into a mainstream setting is not enough to promote their social skills, and that interventions are needed (Kasari et al., 2011).

These efforts on the part of the school serve to maximise the levels of inclusion that can be managed. However, one area in which children can become even more involved in the life of the school is through extra-curricular activities (or wider participation), and it is of concern that the focus pupils took very little part in this aspect of school life. There is no research in this area, and so the current study is able to offer tentative explanations. One possible reason is that the school day is too long for these children, and that they are simply too tired to manage any further involvement in the school. This could be due to the demands of being with other pupils all day in a bustling environment which is stressful for them. Equally it could be due to the often less structured nature of these clubs, which can also involve many more social interactions. This in turn may become unnecessarily anxiety-provoking, but importantly, also expose them to a heightened risk of being bullied.

One area in which schools must address bullying is in the publication and implementation of an anti-bullying policy. Parents were aware of this and felt that it was important to know the school's stance on bullying, although the overall ethos of the school emerged as even more important. This is supported in the literature by findings that the positive ethos of a school can have a profound effect on the way in which the children relate to one another (Morewood et al., 2011), with increased positive relationships and often less bullying as a consequence. No research has been conducted specifically into the ethos of schools containing children with ASD, and this area warrants further investigation, particularly with regard to the relative levels of bullying.

Parental attitudes towards school

The final theme focused on the parents in terms of their relationship with the school and how this may have an impact on their child's vulnerability to bullying. While there is a paucity of educational literature on parental engagement and confidence (and the impact on children), there are findings to suggest that positive relationships between home and school tend to result in the children being more settled and successful academically (Card et al., 2008; Humphrey et al., 2011). This resonates in the current study where all parents expressed high levels of confidence in their child's school: this included open channels of communication and a sense of mutual trust. Indeed, it is possible that these high levels of communication and confidence have an impact on reducing the child's vulnerability to more serious forms of bullying, in that minor incidents are more likely to be addressed before incidents get out of control. If a child knows that parents and teachers have good relationships, then he or she may be more forthcoming in sharing information about hurtful incidents.

Parents also felt confident that the schools had their child's best interests at heart, which is an extremely positive finding, given reports in recent years from the NAS that continue to document the many difficulties parents of children with ASD have with the education system (Reid, 2011; Reid & Batten, 2006). Nevertheless, it should also be remembered that the NAS is an advocacy charity, and that respondents may be biased towards those parents who have had a negative experience, although there is no conclusive evidence to support this.

A final subtheme that emerged without specific interview questions being asked, but which is linked to vulnerability to bullying, is transition. Change of class and school are stressful times for all children, but potentially much more so for a child with ASD (Attwood, 2007). All parents expressed concerns about the effect that transition could have on their child, and while there had been no specific difficulties, it is of note that the one pupil who had moved to secondary school had been extremely worried about it in advance and at the time. Severe stress regarding change and difficulties in making new friendships (both of which are acknowledged in the literature and in the current study to affect children with ASD) may serve to isolate an already marginalised child, increasing the likelihood that a bully will take advantage of the child's lack of friends. This is consistent with studies that

acknowledge that bullying often takes place at these vulnerable times (Laine et al., 2010). There is no specific research in this area in relation to children with ASD. However, given the concerns expressed by the parents in the current study and the amount of anecdotal evidence that abounds in schools, further research in this area is urgently needed.

6.5.1 Summary statements

- None of the focus children had experienced serious levels of bullying, but most of them had been exposed to unkind acts from peers. This is consistent with some literature, but also dependent on thresholds for being bullied.

- While children could define bullying, they had more difficulty in conceptualising it. Parents and teachers also demonstrated a lack of clarity in how bullying could be defined, meaning that more minor incidents could potentially be dismissed. This resonates with the on-going debate over the definition and measurement of bullying.

- The boys had all had issues with behaviour, although it is likely that these were motivated by anxiety, frustration and lack of awareness of appropriate behaviour rather than any malicious intent. This lends support to the argument that the behaviour of children with ASD follows a different trajectory to that of their TD peers. The girls had few difficulties with behaviour, reflecting recent understanding of the female presentation of ASD.

- Relationships with others were consistent with the literature, demonstrating better interactions with adults, lack of quality friendships, social difficulties and a sense of difference in the older children. While some of the children had developed friendships, these tended to be with just one other pupil.

- School played an important role in reducing the children's vulnerability to bullying; this was as a result of inclusive practices and an understanding of the individual needs of the children. This supports a recent change of direction in the literature that is moving away from situating all of the difficulties at the level of the child.

- All parents were confident in their child's school and enjoyed good levels of communication. This may serve to reduce vulnerability to bullying, as incidents are likely to be acknowledged and acted upon more quickly. Nevertheless, all parents worried about the future for their children in terms of transition to other schools and phases of education.

6.6 Integration of findings

The design of this study was a mixed methods QUANT(qual) embedded design, meaning that the quantitative strand comprised the larger portion of the study, with the qualitative one included to add richness and additional explanation to the overall findings. In discussing the research questions individually in the preceding sections, each one was accorded a degree of autonomy. Nevertheless, it is now opportune to evaluate these results in terms of integration: do they converge and how does the qualitative strand add to the quantitative findings? Is it able to offer any further insights in addition to those of the quantitative strand?

This section is therefore divided into three sections: convergence of quantitative and qualitative findings; unique contributions of the qualitative findings; and the benefit of triangulating findings.

6.6.1 Convergence of quantitative and qualitative findings

There is tentative agreement to be found in prevalence levels of bullying in this study, but this is far from straight-forward and depends on the definitions and time-scales used. That none of the focus children had been seriously bullied could be interpreted as consistent with studies suggesting that most children with ASD are not bullied, despite being an acknowledged vulnerable group (e.g. Reid, 2011; Reid & Batten, 2006). The triangulation in the current study between the nomination method and the ratings of Moderate and High on the bully scale would appear to lend further support to this hypothesis. Nevertheless, there was evidence that four of the five focus pupils had been exposed to low levels of bullying from peers, with the fifth pupil's parents anticipating the potential for such issues in the future. In this context, the proportion of children being bullied becomes closer to the prevalence levels found when those with a positive score on the bully scale were classed as victims. This is consistent with the higher figures found in other studies, such as Little (2002) and Wainscot et al. (2008).

One factor that contributes to the difficulty in establishing prevalence is the way in which bullying is measured, and the current research has been able to illustrate the variation in interpretation that can be obtained from within a single study. However,

this does not imply that any of the measurements are incorrect. Rather, it is the author's contention that it underlines the need for research to acknowledge the subjective and personal nature of bullying, and which is often assessed by a third party. It may be that one study wishes to explore whether a child has ever experienced bullying, while another is more interested in the frequency of recent events: both of these approaches are valid in the context of the particular study. The question therefore arises whether it would be feasible to have a single tool that could measure prevalence in different ways according to the needs of the study. This may be closer to the establishment of a gold standard that could retain some sensitivity to the individual as well as being useful as a more scientific measure.

The other factor that continues to cause problems concerns the definition of bullying. The qualitative strand of this study is in line with research that has found inconsistencies in adults' understanding of what constitutes bullying (Ellis & Shute, 2007; Yoon & Kerber, 2003). The use of a definition in the survey used for the current research may have contributed to higher than average levels of agreement between the teacher and parent-reports and could therefore be construed as a useful addition in the light of the lack of clarity found in the qualitative strand. Having both a definition-based survey and interview questions on bullying in this study have been able to shed further light on this difficult research issue.

The focus children's understanding of bullying is a key area in which the qualitative strand was able to add to the debate surrounding definition and conceptualisation. It is of particular interest that the children were able to offer a working definition of bullying but subsequently not relate it to their own circumstances. This has not been specifically explored in the literature before, and could signal to schools that being able to give a definition of something (maybe not just bullying) does not mean that it has been conceptualised accurately. This could indicate that these children fail to realise that they are being bullied and consequently imply that they are unable to report it: this is consistent with the findings of Reid and Batten (2006) and Carrington and Graham (2001).

Parents reported consistently higher levels of bullying and that their child was more likely to be a victim than a bully-victim in the quantitative strand. This is corroborated by parents who spoke more about incidents and also in greater detail.

As discussed in the context of RQ1 and RQ2, there are potential reasons for this, such as teachers failing to notice bullying due to the number of children in their class, or alternatively the closer relationship that the children have with their parents. In this context, it is perhaps not surprising that this should be the case, even though the majority of bullying incidents happen at school. Nevertheless, the higher than average level of agreement between parent and teacher-report found in this study may also be supported by the fact that the parents of the focus pupils all stated that they had a good relationship with their child's school. The advantage of the qualitative data here is that information about the reasons for their confidence in the school could be explored.

In terms of the findings common to teacher and parent-report in RQ2 (year group and behaviour problems), the qualitative strand converges, adding to the statistical findings by offering explanations for why this may be the case. For example, in the case of age, the youngest pupil's mother felt that the children were too young to have developed bullying tendencies and that they treated all their peers equally. Similarly, when discussing behaviour issues, the interviews with both adults and pupils revealed some of the processes that were at play. This demonstrated that there could be crucial differences in the triggers of a child with ASD compared with their TD peers. The finding that girls seemed to have qualitatively different behavioural patterns also adds to the recent debate on the female presentation of ASD: this is of particular interest, as much of the research into ASD focuses predominantly on boys.

Although positive relationships was not a significant predictor in the parent model, the information provided by parents in the interviews sheds a fascinating light on the social difficulties and friendship-styles of their children. In particular, these interviews offered an insight into relationships with adults that were generally more successful than those with peers. This is another area with little research that would benefit from additional studies.

6.6.2 Unique contributions of the qualitative findings

Although the interviews in the qualitative strand were driven by questions of interest in the quantitative strand, it was considered vital to acknowledge and explore any other themes that were discovered independently of the original interview schedules.

Two such themes emerged and are discussed briefly in the following section (- the reader is directed to the full discussion of RQ3 in section 6.5 for more detailed information). The importance of the role of school in supporting the child was valued highly by parents, and it was clear that the schools in question were making great efforts not only to understand the children but also to maximise their experience of education in social as well as academic terms. All of the children appeared relatively happy and settled in their schools, with mainly tolerant peers and some friendships. This is likely to have a strong protective effect against vulnerability to bullying, and may have been evidenced in their relatively low exposure to bullying.

Transition was a concern that was shared by all of the parents of the focus pupils, and this emerged strongly. While transition issues may ostensibly be more concerned with difficulty with change, it is likely that transition is a time when a child's vulnerability to bullying is significantly heightened. Not only do the children suddenly become the youngest in much larger schools (in the case of transition to secondary school), but they may transfer to a school where they have few if any acquaintances. For a child whose difference may have been tolerated by long-standing peers in primary school, this protective layer is often lost in transition, leaving them potentially without friends to offer support. While transition is often cited anecdotally as a difficult time by parents and teachers, the level of concern from the parent interviews in the current study means that further research is required urgently in this under-researched area.

6.6.4 Benefits of integrating findings

The aim in using an embedded mixed methods approach was to add richness and explanation to the statistical findings, to put "meat on the bones' of 'dry' quantitative findings" (Bryman, 2006, p. 106). It is the author's belief that this has been achieved in the current study, especially given the high levels of convergence between the quantitative and qualitative findings. Indeed, it is of note that while there are some minor differences, there are in fact no incidences where the two strands contradict each other. This is, to a certain extent, due to the questions in the qualitative interviews having been driven by needs of the quantitative strand, but the responses to these questions were not influenced by the survey research. The qualitative interviews were able to offer explanations and processes that assist in the

interpretation of complex issues in the lives of children and young people with ASD, giving a voice to some of those involved and making statistical findings more tangible.

Another benefit is concerned with theory and the inter-relationship of causes of bullying (or protection from it). As discussed in Chapter 1, no single theory can account for all bullying behaviour (Rigby, 2004), due to its inherent complexity and dependence on multiple contributory factors. However, by considering risk and protection using MMR, the multiple factors at play at different levels (e.g. individual, school and family) can be appreciated. A pertinent example of this is how parental engagement and confidence appear to be associated with a child's vulnerability to bullying: evidence can be seen for this in the quantitative model, with explanation provided in the qualitative interviews. Similarly, support provided to children in school, that may be decided at LA level and is dependent on many policies can also have an effect on that child. This is consistent with Bronfenbrenner's (1979a) ecological systems theory on the complex interplay of factors contributing to a child's relationship with the world and, in this case, vulnerability to bullying.

An additional but nevertheless important benefit of integrating findings relates to the triangulation of results using different methodologies. It is always useful to be able to use more than one respondent and more than one approach in order to improve the validity of findings, and this has been integral to the current study. MMR has rarely been used in the study of bullying and ASD, but it would appear that this is an approach with potential strengths in terms of adding to the current field of research.

6.6.5 Summary statements

Convergence of findings:

- There is some agreement regarding prevalence levels shared between the quantitative and qualitative phases of the study, but this depends on the method of measurement used.
- The use of a definition of bullying in the surveys may have led to above average concordance between parents and teachers, and its use was justified in the light of uncertainties surrounding the definition of bullying in the interviews.
- Parents consistently reported that their children were more bullied and more likely to be victims (rather than bully-victims) compared with teachers. Nevertheless, this may be moderated by positive home-school relationships.
- Issues of social relationships are of importance, with difficulties in forming friendships, despite acceptance by the wider peer group, likely to add to vulnerability.

Findings unique to the qualitative strand:

- The role of school was very important to parents, with good communication central to this.
- Concerns about transition emerged strongly, indicating an area in which schools have a vital part to play in ensuring that pupils' anxieties are managed appropriately.

Benefits of integrating findings:

- Using an embedded mixed methods design permits a richness of findings which is not possible in purely quantitative of qualitative studies.
- Explanation of the processes leading to vulnerability of bullying, and the risks associated with it, make a valid contribution to knowledge in this area.
- Triangulation of results makes findings more credible, but also sheds light on the different perspectives held by different respondents.

6.7 Limitations

When conducting research of a psychological and educational nature in real-life settings, the presence of limitations becomes a necessary consideration, and this is apparent from concerns identified in the literature review. While it was the intention in the current study to address as many of these issues as possible (for example, by using a nationally representative sample to enable greater generalisability), a number of limitations nevertheless remain. It is the intention in this section to acknowledge these limitations and to assess their potential impact on the findings. For the sake of clarity, these concerns will be addressed in two sections: methodological limitations and conceptual issues.

6.7.1 Methodological issues

Selection of the AfA sample and representativeness*:* One of the issues that must be acknowledged from the outset is that the data used in this study were collected as part of the evaluation of a larger study, *AfA* (Humphrey et al., 2011). As mentioned in the Methodology, the ten participating LAs were selected by DfE in order to reflect a range of different demographic areas, and the aim was that the schools within each authority would be similarly representative (DCSF, 2009). However, the evaluation of *AfA* revealed that the LA strategies for recruiting schools varied: some simply nominated schools with little choice involved, while others invited schools to volunteer or apply for consideration.

Therefore, the conditions under which schools were recruited were neither random nor consistent across authorities. This may lead to concerns that the sample lacked representativeness. There are, however, a number of reasons why this may not be an issue in the current study. First, the overall sample of 454 schools from diverse LAs should ensure that there is a suitable spread of pupils from different areas and types of schools. Second, the analyses for the entire sample of cohort 1 pupils in *AfA* indicated that the sample was representative (Humphrey et al., 2011). Third, the further analyses conducted on the pupils with ASD in this study also indicated that the children were largely representative of the population being studied. The discrepancies in school type and SEND provision were likely to result from

differences in which levels of SEND support are recorded by DfE. Divergences in response numbers according to year group could be explained by the higher levels of teacher and parent responses from primary schools, but it is hoped that the larger sample sizes negated any adverse effects because of this. Therefore, while the conditions for selection of the sample may have contained some flaws, it would appear that the final sample conformed broadly to national expectations.

The absence of a control group in this study could also be seen as a weakness. However, in RQ1 it was possible to compare the prevalence of bullying of children with ASD to other SEND areas of need, meaning that useful comparisons could be made. In the two other RQs, it was not the intention to make direct comparisons with other groups of children: rather the focus was solely on those with ASD in order to identify risk and protective factors for bullying. In this context, the inclusion of a comparison group in the current study would have served no practical purpose.

***Data collection**: AfA* was a generously financed pilot project and this funding included an expectation that schools would participate in the evaluation. There is a potential ethical risk here if individual teachers did not wish to participate but felt under duress to do so. However, this was countered by emphasising that the participation of individual teachers was voluntary, and if anyone wished to opt out, there was the option to contact the university directly rather than risk conflict with the school. The fact that no teachers took advantage of this confidential offer indicates that either the majority the teachers were happy to participate, or that responsibility for completing the surveys was passed to another member of staff if another had refused, or alternatively that some teachers simply chose to not complete the survey (which is reflected in the completion rate of 58.94%).

Nevertheless, a concern in this type of research is related to the accuracy of information given by teachers (Griffin & Gross, 2004), although it is thought that teachers now have greater awareness and understanding of bullying (Maunder et al., 2010). While at primary school pupils tend to have the same teacher for the majority of the week, meaning that the teacher is likely to know the children well. This is more difficult in secondary schools, where children may only see their form tutor for a few minutes a day, subject teachers have lessons lasting 40 minutes to an hour at a time, while pastoral heads of year only tend to become involved with individual

pupils if there is a problem. Even if a teacher knows a child well, there is the potential for other inaccuracies to creep in. For example, a teacher may have had behaviour problems or bullying in his/her class and be sensitive to any inference that there may still be problems, leading to under-reporting in such cases. Alternatively, a teacher may be hesitant to show the school in a poor light (even though the surveys were confidential and anonymous) and therefore paint a more positive picture than is actually the case. These are issues that are difficult to control, but given the large number of responses from teachers in the surveys, it is hoped that this will minimise the effect of any less reliable responses.

Parental surveys are also fraught with the potential for weaknesses, largely due to the low response rates that are typical in this sort of research (Cohen et al., 2007). In the current study, it means that the majority of parents were not represented. Only a very small minority of parents actually opted out of the surveys, but rather than return the opt-out consent, it is likely that many parents refused to participate by simply not completing the surveys. The evaluation was reliant on schools passing information about the surveys on to parents, and it is impossible to know for certain whether this happened, or whether some schools withheld information if it was felt a parent would reflect negatively upon the school. While speculative, such possibilities cannot be discounted. Nevertheless, the above average levels of agreement between the teacher and parent surveys suggest that the findings in the smaller sample have validity and may serve to counteract the effects of a parent sample that is considerably smaller than the teacher one.

Similar criticisms could be levelled at the selection and interviewing of the focus pupils and their families. No school was obliged to take part in the case study component of *AfA,* and it is possible that only those schools volunteered that were confident in their ability to serve the needs of their pupils with SEND. Related to this, schools proposed the focus pupils for participation (pending parental consent), and again it is possible that only those parents who were considered reliable and more likely to speak positively about the school were invited. However, the extent to which the qualitative findings reflected the quantitative ones would imply that the focus pupils and their parents were broadly representative for the purposes of this study. This level of triangulation adds strength to both quantitative and qualitative

results, making the overall findings more likely to present an accurate picture of bullying.

In terms of the environment in which the surveys took place, most teachers completed them online, and this could have been at school or from home. The same is true for completion of the parent surveys, although many more were done on paper than online. It is known from conversations with schools, that most parents completed the surveys independently, but in some cases schools organised events at which parents could access computers or support. The advantage of this is that parents who did not have a computer or who struggled with literacy or understanding of English had greater than usual opportunities to participate. However, this approach could also mean that some surveys were not completed confidentially and that parents may not have felt they could be completely open when responding if a member of staff was with them.

Finally in this section, the absence of self-report in the surveys must be considered. While some believe that self-report is the best way to gain an insight into a problem (e.g. Ahmed & Braithwaite, 2004; Beran, Hughes, & Lupart, 2008), it was decided that the Year 1 pupils in the evaluation would be too young, and there was the additional issue the some pupils with more severe impairments would be unable to understand the nature of the surveys (Ladd & Kochenderfer-Ladd, 2002), and would not be properly represented. Although it is acknowledged that self-report has strengths (ibid.), there were practical and justifiable reasons not to include it in the current study, with the use of more than one type of respondent already increasing the validity and reliability of the study. The inclusion of three pupils in the qualitative strand was considered advantageous, as they were able to make useful contributions, while acknowledging at the same time that two were unable to for the reasons cited (age and level of impairment).

***Measurement tools**:* The use of bespoke surveys has the potential for low levels of reliability and validity, especially compared with established measures that have been tested in multiple contexts and ratified over time (e.g. the *Revised OBVQ*, Olweus, 1996). Nevertheless, as discussed in the Methodology, the *WOST* and the *WOSP* were both conceived in the light of pre-existing measures and were then subject to rigorous review, including piloting and an analysis of their psychometric

properties (see Humphrey et al., 2011). Having specific measures for each of the areas under investigation would have been overly-time consuming for teachers and parents to complete, and so the strategy used in the current study was adopted as the best fit given the context and constraints of *AfA*.

With its inherent flexibility, the use of semi-structured interviews in the qualitative strand may be criticised for being biased or lacking in validity and reliability. This is a criticism that has been made of qualitative and MMR research by academics favouring a more scientific approach (e.g. Maxwell & Mittapalli, 2010). Nevertheless, as stated in the Methodology, all aspects of the current study were subject to scrutiny and verification at every stage (e.g. use of recommended frameworks for quality), with the use of a mixed-methods design offering the opportunities for high levels of triangulation that are not possible in many studies. Therefore, while no measurement tool or questionnaire can ever be deemed perfect, it is hoped that in the case of the current study, the steps that were taken achieved a level of quality that can be considered appropriate.

Analytical considerations*:* Although the sample sizes in the current study can be considered good in the light of previous research, the effect size calculations revealed that the teacher sample could only detect medium effects and the parent one only large effects. Therefore, there is a possibility that the tests conducted lacked the sensitivity to identify risk and protective factors that would have become significant with larger sample sizes: this risk is consequently much higher in the parent model. In addition, the difference in sample size between the teacher and parent datasets makes direct comparison more difficult to make, although this discrepancy is consistent with the educational literature in general in terms of lower response rates from parents (e.g. Cohen et al., 2007). However, given the exploratory nature of this study, it is hoped that the findings presented serve to stimulate the debate over the bullying of children with ASD and encourage further research.

Additional variables: There are many variables that could be included in the study of risk and protective factors for bullying, and it is also the case that no study can realistically accommodate them all. One of the principal constraints affecting the current study is the fact that its data were drawn from a larger study, *AfA*. This means that there were restrictions on the variables that could be used from the outset. For

example, the mental health of young people with ASD is an area of great concern and growing understanding, in particular where anxiety is concerned (Hebron & Humphrey, in press), and it would have been beneficial to have included a measure of children's anxiety in the current study. There are many other variables that would have been of interest according to the general bullying literature (and which have not yet been explored in the ASD literature), such as class size (Atria et al., 2007), school level factors including management and ethos (Bonnet et al., 2009), and being classed as gifted and talented (Card et al., 2008).

Furthermore, cyber-bullying is currently attracting considerable interest. While an item on this was originally included in the bully scale, it was excluded following piloting, due to the very low response rates. This perhaps indicates that teachers and parents were unable to respond, due to the covert nature of cyber-bullying, and also that the Year 1 (and possibly also Year 5) pupils were too young to be exposed to this sort of bullying. However, as many children with ASD spend considerable amounts of time using the internet, it is reasonable to speculate that this could be a particularly problematic area for them in terms of bullying.

While drawing data from a larger study has some drawbacks, it can also confer advantages, the main one being that there was access to a large dataset that was nationally representative and with a qualitative element. Many useful variables were available to the current study which would have been difficult to access if the author had worked independently on the data collection. Examples of this are the ability to have many different contextual variables, such as *FSM-eligibility*. Use of *AfA* surveys also allowed for data to be collected by means of one measurement tool on a variety of social areas, such as behaviour problems and positive relationships. Finally, it was possible to include new variables of that have not yet been used in this sort of research, e.g. *parental engagement and confidence*, and *use of public/school transport* to travel to school. Thus, while there are some inherent constraints in drawing data from a larger study, this is balanced with certain advantages.

6.7.2. Conceptual issues

Defining and measuring bullying*:* The literature review began with a discussion of the long-standing debates concerning the establishment of an adequate definition of bullying. The current study adopted the definition used by DCSF at the time of the project's inception (DCSF, 2008a) and which was short and succinct. This definition was amended by DfE (2011a) following the change of government in 2010 and replaced with a longer version that specifically mentions some vulnerable groups. Thus is can be seen that even within one education system, understandings of bullying remain fluid and can reflect government agendas. In this context it is acknowledged that the current study used a definition that was relatively simple but, in the author's opinion, permitted a certain flexibility that would allow the unique context of bullying to be taken into consideration by teachers and parents. Nevertheless, it is also possible that this definition allowed for over-reporting to take place that may not have happened with a more prescriptive version, such as the most recent one. As was found in the qualitative strand, adults have different understandings of what bullying is, and whether this can include perceived less serious forms such as teasing and name-calling should be included.

Further to this there is the issue of whether it is ever possible to have a cut-off point at which bullying can be said to occur. While Solberg and Olweus (2003) called for a specific threshold when using the *Revised OBVQ* (1996), there remains no agreed point at which bullying is known to occur, whether considered according to frequency or severity. This means that high levels of subjectivity necessarily remain in this area of research and which are likely to have an impact on the reliability of findings. Nevertheless, it is hoped that by using more than one form or measurement, the current study has added to the debate and strengthened the argument against having strict thresholds.

Identification of ASD*:* Unlike some types of SEND, the identification of ASD can only come as a result of a clinical diagnosis and is governed by the definitions in the *DSM-IV-TR* (APA, 2000) and the *ICD-10* (WHO, 1992). Despite having apparently strict guidelines for diagnosis, prevalence levels have risen exponentially in recent years. This is likely to be due to better awareness among the medical profession and more inclusive diagnostic criteria (King & Bearman, 2009; Matson & Kozlowski, 2011). However, there is still an element of subjectivity, with no single agreed

assessment tool and guidance rather than statutory procedures for its diagnosis. There are additional concerns that delays in the assessment process lead to some children not having the support they require. In the context of the current study, this could mean that the actual number of children with ASD is under-reported.

Perhaps a more immediate concern is how the pupils were identified as having ASD for the current study. Due to the large numbers involved in *AfA*, it was not practical to verify every diagnosis through the local medical/psychological services, nor was it possible to conduct assessments to verify ASD independently. Data received from the DfE via the National Strategies for *AfA* were found to be incomplete and contained many errors, meaning that they could not be considered reliable. Instead, it was decided that teacher identification would be used, on the understanding that a child's school has a duty to be aware of such diagnoses, provided parents given their consent for the school to be informed. However, this assumption cannot be verified and it is possible that some errors were made by teachers. While it could be deemed unprofessional to do so, it is feasible that some teachers may have made assumptions about a child awaiting or still undergoing assessment. It is acknowledged in the literature that there is still uncertainty and a lack of understanding among teachers regarding ASD (Guldberg, 2010; Simpson et al., 2003), and so this risk of over- or under-identification cannot be ignored. Teacher identification of ASD was also used for the parent surveys in order to keep a consistent approach, although it is once again acknowledged that this strategy may lack some of the rigour compared with independently verified assessments. Nevertheless, there are a number of other studies in the area that have relied solely on parental identification via websites or charitable groups (e.g. Reid & Batten, 2006), which is likely to be a less accurate method than the one used in the current study. Thus, it is hoped that in the current study the large sample sizes and obligation of the teaching profession to report accurately minimised over- or under-reporting.

SEND support*:* A final concern that must be acknowledged is the level of SEND provision reported by the teachers in the surveys. While teachers should be aware not only of the SEND-type but also of the level of provision a child is receiving (SA, SAP or statement), there is considerable variation between LAs in terms of how support is defined, allocated and funded. This lack of consistency has been heavily criticised by Ofsted (2010) with the recommendation that SA be abandoned as a

category. However, lack of funding or the ability of a school to manage a child's needs may have an impact on whether that child is assessed for a statement. For example, in an LA with little funding for statements, a school may not apply for one, as it would confer few advantages; whereas if funding is readily available, then schools may be more likely to apply for a statement. Once again, while the large sample spread across ten local authorities may serve to reduce any undue impact, it must be acknowledged that there remains an element of subjectivity in the levels of provision reported in this study.

6.7.3 Summary statements

The consideration of limitations remains an important issue in any piece of research. In the current study these were divided into methodological and conceptual limitations.

Methodological limitations were:

- Selection of the sample and its representativeness
- Issues of data collection
- Measurement tools
- Analytical considerations
- Additional variables that were not included

Conceptual limitations were:

- Defining and measuring bullying
- Identification of ASD
- SEND support

While an aim of the study was to minimise the number of limitations or to reduce their impact, the presence of the issues noted above was discussed in relation to their potential influence on the findings.

6.8 Implications

In light of the discussion of the findings presented in this chapter, a number of implications emerge that have a bearing on children with ASD, bullying and what can be done to reduce the prevalence and risk of it happening. As the results of each research question have been discussed individually, with a section on how the quantitative and qualitative findings integrate, the implications of the findings are discussed according to the broader areas of the study: prevalence, victim role, risk and protection.

6.8.1 Prevalence

As in the general bullying literature, there is great variation in prevalence estimates for the bullying of children and young people with ASD, and the possible reasons for this have been considered in the discussion of RQ1. A cautionary message emerges from this study that may, on the surface, appear contradictory. On the one hand, when asked simply whether a child was bullied or not, it emerged that most children with ASD were not victims of bullying. On the other hand, when assessed using a scale, the majority of children were found to have a positive score, indicating that they had been exposed to some level of bullying, however low it may be. This implies that while severe bullying may affect only a small number of children, a more hidden, low-level form may affect many more. In this context, schools need to be extra-vigilant for signs of these lower levels of bullying, as they may build up over time, resulting in sudden outbursts as a result of a child trying to manage apparently minor incidents, such as teasing or provocation by peers. Given the high levels of exclusions in this group (Humphrey, 2008), additional attention to traditionally less serious forms of bullying may reap benefits for both children and teachers.

Children with SEND are acknowledged in the literature as being a vulnerable group for bullying (e.g. Green et al. 2010), but the findings here provide evidence for the first time that children with ASD are among the most vulnerable and may even run the highest risk of the most severe forms of bullying. While children in the BESD area of need appear the most at risk of being bullied, it must be acknowledged that behaviour problems and ADHD often accompany a diagnosis of ASD (Macintosh &

Dissanayake, 2006), meaning that children with ASD may be even more vulnerable than the findings in this study suggest. This must be taken on board by schools, not only for monitoring in the classroom, but also at unstructured times of the day, when there tends to be less adult supervision. While a child with ASD may receive considerable support in class, this is often not extended to break or lunchtime, when children are left to socialise with each other. In addition, many schools now employ non-teaching staff to supervise children at these times of the day, meaning that they are less likely to know the vulnerability of particular children and may consequently be less aware of problems. Break and lunchtime are therefore likely to be the most difficult times of the day for a child with ASD. Some schools provide areas or clubs for vulnerable children at these times, and the findings here suggest that this provision should be available in all schools, and in particular in secondary schools due to the larger number of pupils and potential increased opportunities for bullying.

A worrying aspect of vulnerability to bullying is perception of it by adults, and this was apparent in the qualitative interviews in this study. As discussed in the Literature Review and the Limitations section, there is an on-going debate about definitions and understanding of bullying by different stakeholders. If adults do not have a clear understanding of bullying behaviour, then prevalence and incidence are likely to be reported incorrectly. While serious incidents of physical bullying are straightforward to identify, there were indications in the current study that lower levels could be trivialised or under-estimated. Indeed, there are research studies that struggle to regard teasing as a form of bullying (e.g. Sofronoff et al., 2011), and others that acknowledge its potential to cause suffering (e.g. Samson et al., 2011), especially in the case of children with ASD who often struggle to interpret the intentions of others. Therefore, it is important that all adults understand the potentially damaging effects of incidents perceived as less serious, but which may be having a detrimental effect on a child. As mentioned at the beginning of this section, sustained low levels of bullying behaviour may build up until the child with ASD can no longer cope, resulting in apparently unprovoked outbursts for which the child is often punished. Greater understanding of the triggers for outbursts may be critical in reducing or stopping them altogether.

It is also important to note that children with ASD may have an incomplete understanding of bullying, and this could have an impact on their ability to report it.

It is noted in the literature that some children with ASD may lack the cognitive or social ability to fully understand bullying (Griffin & Gross, 2004; Ladd & Kochenderfer-Ladd, 2002), and this was particularly apparent in the qualitative strand of this study. There appeared to be a discrepancy between the ability to give a working definition of bullying and to actually conceptualise this in personal terms. Schools should be aware of this and ensure that the child with ASD is monitored discretely if there is a risk of bullying. It is not necessary to be with a child all of the time, and indeed this may be counterproductive in terms of socialisation, however, there is a strong case for increased vigilance, especially if the child lacks protective friendships.

6.8.2 Role of the victim

According to the general bullying literature, bully-victims comprise a small minority of all victims of bullying but this was not found to be the case for children and young people with ASD. While this group of children were still more likely to be victims rather than bully-victims, the ratio of bully-victims was much higher than would be expected among their TD peers. As mentioned in the previous section, children with ASD have relatively high levels of behavioural difficulties, and this may predispose them to being viewed by peers and adults as bullies (Borntrager et al., 2009). For example, inappropriate responses due to misreading a social situation or becoming overwhelmed by anxieties and frustrations may result in the child being regarded as aggressive when in fact this was not the underlying intention. Of course, this does not imply that a child with ASD cannot act in a deliberately malicious or hurtful manner, but it does once more put the onus on teachers to try to understand the events that have led to a behavioural incident. Children who are regarded by their peers as violent and unpredictable are less likely to have friendships, and are also less likely to be helped by peers if they are unpopular (Card et al., 2008), making them increasingly attractive to bullies. In this context it is clear that schools must make great efforts to understand the aetiology of a child's behaviour. Where this happens, there is an indication in the qualitative strand of this study that it may serve to reduce bullying.

6.8.3 Risk and protection

It was established early on in this study that the variables used could be seen as being on a dimension, with risk at one end and protection at the other. While a majority of this study has been focused on risk, it should be remembered that prevention may be achieved by understanding the risk-protection nature of the variables found to be significant in this study. Each of the significant variables has implications for the understanding of bullying of children with ASD, and so they are addressed in this section, including additional insights offered by the qualitative strand. A lot of existing research into children with ASD focuses on individual factors, and this is not limited to studies investigating bullying. However, fewer than half of the significant variables were found to be at this level, suggesting that bullying is also influenced by factors external to the child, such as those related to the school and family. This is consistent with Bronfenbrenner's (1979b) ecology of human development, in which he argues that influences come from different ecological levels, all of which interact with one another. This is a relatively unexplored area for children with ASD, and so forms an important part of this section, that follows the discussion of individual factors.

Individual factors

Behaviour problems were identified by teachers and parents as the most powerful risk factor for bullying, and this is consistent with the findings in RQ1. While having behaviour problems may be more readily identified with being the bully, it was noted in the previous section that behavioural issues may have a different trajectory compared with TD children (Hebron & Humphrey, in press). Once more, this means that schools need to be aware of the specific needs of a child with ASD, of their difficulties in social situations, ensure that other children do not antagonise them in order to provoke a reaction, and train the child through interventions to cope with the social stresses and anxieties that may be encountered in school on a daily basis. It would appear, that with optimum levels of understanding, potentially enhanced through ASD-specific training, that teachers can adapt the environment and ensure that the triggers that may result in behavioural difficulties are minimised.

Age was also identified by both teachers and parents as a potent risk factor for bullying. The findings in this study that bullying increased with age, only beginning to reduce slightly in Year 10, contradicts some robust findings in general bullying

research that it tends to fall with age. The implication here is that teachers need to be aware that the bullying of children may follow a different pattern compared with their TD peers, due to differences in social competence and understanding. While most children form a group identity as they enter adolescence (Locke et al., 2010), the social impairments inherent in ASD may actually make this a more divisive period, with group identity more likely to leave this group of young people increasingly alienated and marginalised. It is essential that schools are aware of this, and if a pupil with ASD is found to be vulnerable, then steps need to be taken to ensure that there is a support network to prevent this risk of increasing isolation.

Linked to the notion of isolation is the quality of pupils' relationships with others, and how this may predispose them to being bullied. While this variable was not significant in the parent model, there was ample evidence from the qualitative strand that relationships with others were of key importance. The findings in this study are consistent with many other findings in the ASD literature on peer relationships, with this possibly being the most investigated aspect of children with ASD during their school years (Bauminger & Shulman, 2003; Bauminger, Solomon, Aviezer, Heung, Brown, et al., 2008; Bauminger et al., 2010; Chamberlain et al., 2007). Nevertheless, the fact that there remain unacceptably high levels of bullying in this group of children means that there is still work to be done in fully integrating and including them in mainstream schools. As noted by Kasari et al. (2011), it is not enough to simply place a child with ASD alongside TD peers: interventions must be used and the situation needs to be monitored closely. While it is likely that many schools already use a number of strategies to improve the integration and social skills of their pupils with ASD, it is pertinent to suggest that this is not the case in all schools, as the levels of bullying found in this study imply. Sharing of good practice regarding strategies such as buddy systems and circles of friends need to be evaluated with this group of children in mind, to ensure that they are actually working as intended and not just based on untested assumptions. It is acknowledged that friends cannot be manufactured for pupils with ASD, but at the same time it is possible to improve the tolerance and understanding of peers by teaching them about autism and the differences that it may cause.

School factors

While there are many potential reasons why attending a special school results in a reduced risk of being bullied, it is a timely finding in the context of ever-increasing provision for children with ASD in mainstream schools. Questions therefore need to be asked in this respect, for example whether smaller classes, more highly trained staff, improved understanding of ASD, and less perceived difference from peers all contribute to reduce the risk of being bullied. As this was an exploratory study, the findings regarding the risk of bullying in mainstream and special schools warrant further, more detailed investigation, especially if more and more children with ASD are destined for a mainstream education.

The finding that children at SAP are perceived by parents to be more vulnerable to bullying than children with a statement is a worrying finding. It is perhaps logical to assume that children with a statement have the greatest needs and so receive the highest levels of support, but at the same time it is possible that a child is awaiting assessment, or has not yet been referred, and yet the needs are still present but less supported due to the nature of SAP. In this context, schools should ensure that children with ASD at SAP are monitored closely, especially at unstructured times of the day, and that their social needs are given particular attention. It is possible that pupils at SA are also at risk, but it is likely that the sample size was too small to detect this in the current study. Only a minority of pupils with ASD were at SA in the current study, but with even less support available for these children, it is feasible that they are also at heightened risk for being bullied.

The use of public/school transport to travel to and from school was a marginal significant finding, but the lack of adult supervision at these periods of the day makes it increasingly likely that bullying takes place. There is remarkably little research in this area (the only dedicated example in general bullying research being Raskauskas, 2008), and this is the first study to look specifically at pupils with ASD. In this context it is necessary for schools to monitor those children with ASD who use public/school transport, perhaps checking whether they have a friend with whom they can sit, and also verify with the pupil and parents whether there have been any incidents.

Furthermore, it is of note that it is not only teachers who can be instrumental in reducing the risk of bullying, but that the peer group also has a part to play. Bullying typically takes place with witnesses present (Craig, Pepler, & Atlas, 2000): how these bystanders react to bullying has been found to have an important impact on the outcome of bullying. For example, Salmivalli, Voeten, and Poskiparta (2011) found that if bystanders defended the victim, then the bullying often stopped, with the opposite trend found if bystanders reinforced the bully. However, it has also been reported that bystanders frequently do not become involved, and this may be due to a "diffusion of responsibility" (Salmivalli, 2010, p. 115) when a child hopes others will intervene yet no one feels responsible. Nevertheless, there is evidence to suggest that children can be trained to avoid reinforcing behaviour in bullying incidents and also offer more support to the victims, thereby having the additional benefit of attenuating the effect of the bullying on the victim (e.g. Kärnä et al., 2011). Although work in this area has not focused specifically on children and young people with ASD, it is reasonable to propose that approaches focusing on increasing the peer group's empathy, self-efficacy and attitudes to bullying, can and should be extended to supporting this particularly vulnerable group of children.

Finally, concerns about transition emerged strongly in the qualitative interviews, particularly strongly from parents, although there was an awareness of the issues in teachers as well. It is acknowledged that transition arrangements are put in place for all pupils when they move from primary to secondary school, but what was of note in the current study was the need for lesser transitions (such as a change of teacher or year group) to be managed sensitively. In the focus pupils' schools, there was an encouraging awareness of this, but this did not dispense with the concerns of the pupils and their parents. Therefore, while many schools undoubtedly put in place specific plans for pupils with ASD, given the increasing number of pupils in mainstream schools, it is perhaps timely to introduce national guidelines and advice for all schools, as many may only now be going through this process for the first time.

Family factors

The only family factor to emerge as significant was that of parental engagement and confidence, and this is the first time that it has been explored in this way in ASD research. While a report by the NAS (Reid & Batten, 2006) has indicated that parents

frequently encounter difficulties and frustrations with the education system, this study demonstrates an association between higher parental engagement/confidence and lower levels of being bullied. On a similar note, the qualitative interviews with parents revealed how highly they valued a strong and positive relationship with the school, including open channels of communication. This finding should send a powerful message to schools and policy makers that greater engagement with parents of children with ASD is to be encouraged, especially as these parents may have had considerable difficulties with the education system up to this point.

Good levels of communication between home and school are also to be encouraged in the light of the moderate convergence between parents and teachers in terms of reported bullying. While the levels of correlation in this study are above average compared with the literature (Achenbach et al., 1987), it is important to note that differences in perception of a child are not necessarily a weakness, but that they may be indicative of the different environments in which parents and teachers see a child (Schwartz et al., 2005). Rather than being conflicting, these views should be viewed as complementary and can be used for the benefit of the child if there is good communication between home and school. Strategies such as home-school diaries can be effective (Hebron & Bond, 2012), but there is a need for more sharing of good practice and evaluation to establish which methods work best for individuals.

Factors at different ecological levels of influence

The areas mentioned in the previous three sections illustrate how vulnerability to bullying arises due to a number of risks which are at different ecological levels of influence. While it is acknowledged that the impairments found in ASD may largely predispose a child to being bullied, school and parents also have a vital part to play in reducing a child's vulnerability to it. This may be achieved in many ways, such as ensuring that staff are adequately trained and understand the unique profile of children with ASD, educating the peer group about difference and fostering a tolerance of it through an inclusive ethos, and involving parents in their child's school to ensure positive channels of communication and cooperation. Therefore, bullying is not solely due to factors within the child, but is influenced by many external factors that inter-relate and must be taken into consideration by schools.

Cumulative risk

The inclusion of an exploratory cumulative risk model in this study has revealed a worrying trend for children with ASD of which teachers need to be aware. The cumulative model was able to demonstrate a relationship between the number of risks to which a child was exposed and the ever-increasing likelihood of being bullied. In both the teacher and parent models, the majority of children with ASD had between one and three risks factors, with a peak at two, with a small number having all of the risks. This indicates that while being bullied is not an inevitability for these children, they nevertheless tend to be exposed to a number of risks.

Of particular concern was the exponential increase in bullying found in the teacher model (although there was also some indication of this between two and three risks in the parent model). This suggests that levels of bullying rise disproportionately compared to the number of risks. As the first study to explore cumulative risk in the bullying of children with ASD, this outcome must be viewed as exploratory. However, in the context of findings in other areas of research that have found similar patterns, beginning with Rutter's seminal study on maladjustment (1975), there is a potentially powerful message that vulnerability to bullying can escalate quickly in this group of children who may be chronically exposed to risk factors.

6.8.4. Summary statements

As an exploratory study in an under-researched area incorporating mixed methods and a number of predictor variables, there are potential implications for schools that should be considered when including a child with ASD in any school:

- Schools need to be especially vigilant in identifying lower levels of bullying, such as teasing, that may still be have detrimental effects on children with ASD.

- The frequent co-occurrence of behavioural problems in children with ASD may make them appear more like bullies, but teachers need to be sensitive to the triggers for these children so that they can be minimised, identifying interventions that can help children to manage triggers more successfully.

- Adults need to develop a better awareness of what constitutes bullying, and they should not assume that children with ASD are able to conceptualise bullying.

- In the current study three individual factors were the most powerful predictors of bullying: age, behavioural difficulties and positive relationships.

- Another three school factors were present, demonstrating that schools have an important influence on the child with ASD's vulnerability to bullying, including the involvement of the peer group.

- In terms of family factors, home-school communication should be encouraged in order to develop a closer and more positive collaborative relationship between parents and teachers.

6.9 Directions for future research

The current study was largely exploratory in nature, and as such has generated findings of interest and implications for schools in the education of children and young people with ASD. However, it is also true that research of this nature identifies gaps in the literature that warrant further investigation. While there remain many gaps in a field such as this that is in its infancy, the major ones identified in the current study are discussed in the following sections.

6.9.1 Defining and measuring bullying

These are broader issues in bullying research and are areas that remain incomplete and unsatisfactory. The difficulties in defining bullying have become a running theme in this thesis, and the findings presented here serve to strengthen the argument that research definitions and those of adult respondents are not necessarily consistent (e.g. Guerin & Hennessy, 2002; Naylor et al., 2006). The establishment of a threshold for bullying remains moot, with the author's contention that there can never be a cut-off point defined by a third party who was not present for the act(s) in question. Indeed, it is reasonable to suggest that what to one child may genuinely be felt as bullying may not be the case for another in similar circumstances. The effects on the child must also be acknowledged, and it is apparent that this is an element missing in much of the research into all aspects of bullying.

In this context, it would be of benefit for the research community to aim towards the development of a more sensitive tool for measuring bullying. It may be necessary to abandon the ambition to create a gold standard measure, as the nature of bullying remains so subjective and context-driven that it is questionable whether it will ever be possible to create a measure that is suitable for every age and type of bullying. Add to that the unique needs profile of the child with ASD, and this quest for accurate measurement becomes even more challenging. Nevertheless, it may be through increased use of MMR, with its ability to explore large numbers of respondents, while still acknowledging the actual experience of individuals, that the accurate identification and measurement of bullying becomes feasible, especially in the case of children and young people with ASD. Furthermore, it may be that single or dual respondent measures are insufficient, and that the child's voice must also be

heard, even if levels of impairment may make this difficult at times. These two areas will undoubtedly remain a challenge to the research community for the foreseeable future, but there will be genuine benefits in arriving at more sensitive definitions and measures for assessing bullying, not only for children with ASD, but also the wider child population.

There were indications in this study that while those with BESD were the most vulnerable group for being bullied overall, children with ASD had the greatest incidence of scores at the most extreme end of the bully scale. While all bullying needs addressing, research is nevertheless needed urgently to establish the types of bullying that this entails and the effect on the children. Bullying has been linked to severe mental illness and even suicide (Klomek et al., 2007), with some high-profile reports of young people with ASD having taken their own lives following sustained and severe bullying (e.g. Cassidy, 2012). Therefore, while the young people in this category are in a small minority, their vulnerability is likely to be disproportionately high.

6.9.2 Further exploration of variables

A number of the findings in this study came from areas that have either no previous research or very little, and so further investigation is strongly recommended. The proportion of children with ASD who were nominated as bully-victims was much higher than for the general population (e.g. Olweus, 1993), and with the concomitant concerns about behaviour problems and their aetiology, additional research is called for to explore the precise nature of the acts that may lead these children to be deemed bullies as well as victims. In terms of behaviour difficulties specifically, there is some evidence to suggest that the outbursts associated with children with ASD may be due to triggers that are qualitatively different from those of TD children (Carrington & Graham, 2001). In the context of behaviour difficulties being the most powerful predictor of being bullied in this study, and also above-average exclusion levels for pupils with ASD, additional research is called for as a matter of urgency.

The finding that bullying rises and then remains relatively stable across a number of age groups (rather than decreasing as is found in the general bullying literature), suggests a different pattern of bullying for young people with ASD. As the current

study only explored bullying up to the age of fifteen, it would be of benefit to investigate patterns beyond this age until the end of compulsory education or beyond. It would also be of interest to investigate how the different types of bullying change or remain constant at different ages, as there are suggestions in the general bullying literature that physical forms of bullying are replaced with more subtle and indirect ones as children get older.

In terms of the type of school attended, the finding that children in special schools are bullied less requires further investigation, as there are many possible reasons but no research that has specifically explored them. This has clear implications for the educational inclusion of children with ASD and comes at a time when an increasing number of them are being placed in mainstream schools. The finding that those at SAP, the majority of whom are likely to attend a mainstream school, were more vulnerable to being bullied is another area that requires additional research, not just for pupils with ASD but all SEND-types. This is an area that has no previous research, yet the inference that lower levels of support for vulnerable pupils without a statement may mean that large groups of children are being denied the social support that they need, especially at unstructured times of the day.

Use of public/school transport may be associated with vulnerability to bullying and warrants further investigation. While the author has noted anecdotal support for this as an area of significant risk, there is no research specific to those with ASD, and only one known study from the US (Raskauskas, 2008). Given that many pupils attending special schools and mainstream schools with dedicated ASD provision are likely to live a distance from school and therefore rely on public transport or a dedicated school bus, then this is yet another area demanding further investigation.

6.9.3 Additional variables

It has been previously acknowledged that is it impossible to include every variable in a study, but the inclusion of fifteen variables in the teacher model and seventeen in the parent one represents a high number compared with many studies into bullying. Nevertheless, there are others that would be useful to address in future research in this area.

Cyber-bullying is an area that is attracting increasing attention as a result of the exponential increase in access to the internet and the growth of social media in recent years (e.g. Vandebosch & Van Cleemput, 2009; Cowie 2011). Children and young people with ASD often enjoy the use of computers and there are suggestions that people with higher-functioning forms of autism may feel more comfortable communicating over the internet (Burke, Kraut, & Williams, 2010). Given the social impairments inherent in ASD this presents advantages and disadvantages: benefits are that a young person with ASD may find it easier to communicate in an online environment where visual cues do not need to be interpreted, an existing area of interest can be cultivated, and there is a choice over when to interact. Nevertheless, potential risks are that young people with ASD may unwittingly become victims of online bullying through the use of social media sites or malicious text-messaging that may perpetuate bullying that is already taking place at school. It was regretful that exploration of cyber-bullying was not possible in the current study. However, research involving children and young people from the age when access to mobile telephones and internet access becomes more common is urgently needed.

Although gender did not emerge as a significant predictor variable for bullying in the current study, differences in the behavioural patterns of girls was noted in the qualitative strand. This is consistent with current research that suggests that girls with ASD present differently from boys (e.g. Attwood, 2007), and may therefore be under-represented in the literature. Due to the much higher ratio of boys diagnosed with ASD compared with girls, research tends to focus on male patterns of behaviour and relationships with others. However, emerging research suggesting that girls with ASD may have more subtle impairments (Keen & Ward, 2004) could imply that bullying is a hidden problem, especially given that girls in general tend to make greater use of indirect forms of bullying that are more likely to be missed by adults (Borntrager et al., 2009).

6.9.4 Longitudinal research

It was not the aim of the current study to investigate bullying over time; however, cross-sectional research cannot explore cause and effect. As noted in the literature review, there are a number of factors associated with bullying that may be antecedents or consequences of bullying, and this would be a useful area to explore.

Of particular concern is the amount of mental illness that may be attributable to being the victim of bullying. Since children and young people with ASD are known to experience high levels of anxiety (Green et al., 2005), it is plausible to hypothesise that, combined with bullying, this could have a devastating impact on an individual. The ability to explore uni- and bidirectional relationships is an advantage of longitudinal research and would add to the current findings on bullying in the ASD field.

6.9.5 Cumulative risk and protection

This is the first study to explore the cumulative risk of bullying in this group of young people, and the findings provide cause for concern, especially in the teacher model where the risk was found to be exponential. More research is needed using similar and different variables to assess whether the findings can be replicated, and whether there are indications that a higher number of variables is indicative of ever-increasing levels of risk, or whether there is a threshold of risks beyond which the rise in bullying levels rises less steeply or ceases to rise. It was of note in the current study that few children were exposed to no risks or the highest number of risks. However, in the light of the finding that children with ASD may be vulnerable to the most severe levels of bullying, additional more detailed research would be able to shed light on this disturbing issue.

While a cumulative protection model was beyond the scope of this study, this is an aspect that could be of use in the prevention of bullying. An exploratory study could investigate the extent to which cumulative risk and protection scores are correlated. If there is no perfect correlation, then this would suggest that they were not exact opposites, with the inference that different processes are at play. This could additionally lead into an exploration of resilience in order to understand why some children with ASD do not become victims of bullying, despite being exposed to a number of risk factors. This is an area that has been researched in relation to areas such as mental illness and criminal behaviour, and which could be of considerable benefit to the understanding of bullying and its prevention in the future.

6.9.6 Summary statements

A number of areas emerged from the current study that would be useful to explore in future studies. These concerned:

- Further research into definitions of bullying from different stakeholders.
- The development of a more sensitive tool for measuring bullying, which has the flexibility to acknowledge the subjective and often subtle nature of bullying.
- Further exploration of aspects of some of the significant findings in this study: the nature of bully-victims, bullying at older ages, why special schools have less bullying, vulnerability at different levels of educational support, use of school/public transport.
- Research into bullying of pupils with ASD using additional variables: cyber-bullying and gender.
- The usefulness of longitudinal research in order to investigate cause and effect in terms of risk factors for being bullied.
- The use of additional variables to explore cumulative risk in more depth and detail.
- Exploration of cumulative protection with the possibility of extending this into resilience research.

6.10 Contribution to knowledge

The ability to make a unique contribution to knowledge in the field is a prerequisite of any doctoral thesis, and so the intention in this final section of the discussion is to demonstrate that this has been achieved in the light of the Rationale presented at the end of the Literature Review.

It is widely acknowledged that children with ASD are particularly vulnerable to bullying (Mazurek & Kanne, 2010), but studies to date have largely been qualitative in nature (e.g. Humphrey & Lewis, 2008a) making generalisations difficult, or contain samples that are potentially biased due to recruitment online or through advocacy organisations (e.g. Little, 2002). While this is not a criticism of the studies, it is important to note that the current study is the first in England to use a large and representative sample, allowing for greater confidence when generalising the findings. In this way, it is also able to support the findings of a number of other studies, with a resultant increase in the strength of the overall conclusions drawn.

It is also the case that the majority of existing research in the field only utilises one response format, predominantly parent-report, but also self-report in the case of secondary age pupils, and occasionally peer or teacher-report. The use of parent and teacher-report in the current study is the first time this combination has been attempted in this field, and it is of significance that, while there were some differences in findings for each group, there was also convergence in terms of the most powerful findings of behaviour problems and age. The addition of pupil voice in the qualitative strand, however limited in scope, nevertheless added an additional layer of information that was largely consistent with the literature concerning self-awareness and the experience of school.

Further to the two preceding points is the adoption of a pragmatic approach, allowing the use of an embedded mixed methods design to explore a real world problem. This is the only study to have used this methodology specifically for the exploration of bullying of children and young people with ASD. While a purely quantitative study could have generated interesting findings regarding risk and protective factors for bullying, it is the author's belief that the inclusion of a qualitative strand has added flexibility, and a rich additional level of personal experience and explanation that would not otherwise have been possible. The findings of the current study are further

strengthened by the convergence between the qualitative interviews and the quantitative ones. Furthermore, it gives a voice to the children, their parents and teachers, making the findings more tangible. Despite criticisms of MMR, it would appear that it is ideally suited to this sort of study, provided that it is conducted with rigour and attention to quality in both strands.

In terms of prevalence, this is the first piece of research in the field explicitly to explore different ways of measuring bullying within a single study. That widely differing levels can be reported by using different methods of measurement offers a unique insight into the challenges inherent in trying to assess any complex psychological phenomenon. Nevertheless, the findings in this study underline the fact that children with ASD face unacceptable levels of bullying, and that at the extreme end they may be the most vulnerable group of children with SEND. Linked to this is the role children play in bullying, either as victims or bully-victims. This is the first study to reveal that bully-victims remain a minority but a much larger one compared with the general population. This is a worrying finding, and one that appears linked to the importance behavioural problems play in becoming a victim of bullying.

While the results here appear outwardly compatible with general bullying research in some aspects of behaviour and positive relationships, it is not necessarily the case that their aetiology is the same in children with ASD. This was confirmed in the qualitative interviews that indicated atypical social skills and behavioural triggers that resulted from anxiety and frustration. The discovery that age defied robust findings in the bullying literature reinforced these conclusions and should caution against using general bullying research for children with ASD. This distinct profile of needs is acknowledged by many in the educational inclusion of children with ASD, but this study is the first occasion on which this notion has specifically been extended to bullying.

A further contribution of the current study lies in its inclusion of not just a large number of variables, but also new variables that have not previously been investigated in the context of bullying and children with ASD. The different levels of bullying in mainstream and special schools, use of public/school transport to travel to school, being at SAP rather than having a statement, and the engagement and

confidence of parents, are all variables that were found to be significant. It is of note that these factors exist not only on an individual level, but also include school and family factors. This provides a fascinating insight into the processes that contribute to a child being bullied, and it leads to the inference that bullying is not something that should be seen as an inevitability. While there are certain personal attributes that may increase a child's vulnerability to bullying, the school has an important part to play and may be instrumental in reducing or even eliminating the risk. This notion of different levels of risk is consistent with Bronfenbrenner's (1979a) ecological systems theory, and it also emphasises how risk factors are unlikely to exist in isolation. This study gives further validation to Bronfenbrenner's acknowledgement of the complexity of psychological phenomena.

Cumulative risk has been widely used to investigate various social and psychological difficulties, including mental illness, conduct problems and the risk of criminality, however, it is strangely absent from general bullying research, with only very few studies attempting to incorporate it into studies. The current study is the only one thus far to attempt to explore cumulative risk in the context of the bullying of children and young people with ASD. The findings are of interest and importance, as in the teacher model it appears that the level of bullying rises exponentially in relation to the number of risks to which a child is exposed. Both the teacher and parent models reveal that most children in the study were exposed to a number of risks, once more underlining the need to further research into this worrying area.

The experience of school is often not an easy one for children and young people with ASD, and so it is vital that research continues to drive forward the understanding of issues to which they are particularly vulnerable, with bullying foremost among them. It is the author's hope that the unique additions to the field provided by this study will serve to improve the conditions in school for these young people and also promote better understanding among their parents, teachers and peers. It is useful not to consider research from a purely scientific, quantitative stance or from a purely experiential one, as important elements can be lost in either approach; however, by incorporating both methods, it has been possible in this study to provide findings that are not only generalisable but also personal in nature.

6.10.1 Summary statements

It was the aim of this doctoral thesis to provide a unique contribution to knowledge in the field of bullying and the vulnerability of children with ASD to it. The following points summarise this contribution:

- Use of a large and representative national sample in both teacher and parent-report.

- Use of two adult respondents and, where possible, the child's voice in the qualitative strand.

- A pragmatic mixed methods design allowed for a richer and more detailed exploration of bullying to take place.

- Prevalence varies according to the method of measurement, but bullying is still at worryingly high levels for this group of children.

- The proportion of children nominated as bully-victims far exceeds estimates in the general population.

- There is some support for risk factors in the general bullying literature, but the aetiology is likely to be different, meaning that caution must be advised when using pre-existing research about bullying for this group of young people.

- New variables were used that yielded interesting and thought-provoking findings.

- A cumulative risk model was presented that indicated an exponential rise in levels of bullying (in the teacher model) that was disproportionate to the number of risks.

6.11 Summary and conclusions

6.11.1 Summary of the study

The aims of this study were to investigate the bullying of children and young people with ASD. Specifically, the intention was to explore prevalence levels using different methods of measurement, the role that children play in bullying (as victim or bully-victim), and to discover the risk and protective factors that are associated with being bullied, including the use of an exploratory cumulative risk model. In order to combine the generalisability of a quantitative study and the richness of a qualitative one, an embedded mixed methods design was used.

Data were taken from the evaluation of *AfA*, in which 454 schools from ten LAs in England participated, incorporating primary and secondary, mainstream and special schools. The research questions were addressed in two strands: quantitative and qualitative. In the quantitative strand, teachers and parents of children with ASD completed surveys, with additional contextual data collected from the NPD and from participating LAs. In the qualitative strand, there were five focus pupils whose parents and teachers were interviewed regarding their experience of bullying and school. Three of the five pupils were able to be interviewed, allowing multiple perspectives to be acknowledged.

It was found that prevalence of bullying of children and young people with ASD was higher than the SEND average, although the actual prevalence varied according to the measurement method used. Children with ASD were found to have the highest levels of exposure to the most severe levels of bullying compared with other SEND areas of need. Although they were more likely to be victims than bully-victims, the ratio of bully-victims is likely to be much higher than in the general population.

A number of significant predictors of bullying were found, with *behaviour problems* and *year group* (being in Years 5, 7 and 10 compared to Year 1) common to both the teacher and parent models. The other predictors of risk were *being at SAP* and *use of public/school transport*. Factors offering protection were *school type* (attending a special school), having better *positive relationships*, and having increased levels of *parental engagement and confidence*. For the exploration of cumulative risk, the significant variables were treated as dichotomous, with risk and protection lying at opposite ends of a spectrum. A cumulative risk model revealed that levels of bullying

rose according to the number of risks to which a child was exposed, with an exponential rise found in the teacher model. The qualitative interviews had a good level of convergence with the quantitative results, adding considerable richness to the findings. They also indicated that there were widespread concerns about transition, although schools had a vital part to play in managing this and also vulnerability to bullying.

There were a number of limitations that were acknowledged and assessed for their impact on the overall findings. Methodological limitations were concerned with the selection of the sample, issues of data collection, measurement tools used, the power of the sample, and the absence of some key additional variables that could have been of use. Conceptual limitations related to the definition and measurement of bullying, the identification of ASD and the inconsistency of SEND support in England.

As a result of the findings in this study, there are wide-ranging implications for the ways in which schools manage the vulnerability to bullying of children with ASD, and it is hoped that the findings presented here can influence future policy in this area. Specifically, while some schools have good awareness and understanding of their pupils with ASD, there is a need for this to be more consistent, with training to raise awareness of the different ways in which pupils with ASD perceive the world, and the consequences of this that may be expressed though behavioural issues or social difficulties. Adults need to develop an improved understanding of what constitutes bullying and accept that vulnerability does not only exist at the level of the child, but may be profoundly influenced by the school and also the family, including the quality of communication and trust between parents and teachers.

6.11.2 Concluding comments

The paucity of studies to investigate the bullying of children and young people with ASD has permitted the current study to make a timely and significant contribution to knowledge in the field. This is the first study to incorporate an embedded mixed methods design, allowing quantitative and qualitative methodologies to complement each other in the pursuit of a richer, more detailed understanding of the bullying of this vulnerable group of young people. What emerges strongly is that there are indeed worrying levels of bullying in this group, despite national anti-bullying campaigns in recent years. High-profile tragic cases in the media only serve to

reinforce this message. While it is likely that progress is being made, the message from this study is that more remains to be done, in particular in the light of increasing numbers of children with ASD attending mainstream schools. Although it must be acknowledged that the social impairments inherent in a diagnosis of ASD mean that these children have particular vulnerabilities, being bullied should not be an inevitability, with school playing a vital role in reducing and managing the risk.

In practical and theoretical terms, the findings in this study have made a demonstrable contribution to knowledge, while at the same time highlighting additional areas for research, as this remains an under-developed field in which further research can only serve to improve the educational experience for the young people concerned. The experience and consequences of being bullied are insidious, harmful, and in the most extreme cases have resulted in young lives being lost to suicide. Therefore, it is appropriate to end this thesis with a call for continued research into bullying of this particularly vulnerable group of children and young people, including an acknowledgement that specific strategies and interventions are likely be needed.

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APPENDICES

Appendix 1: Surveys and psychometric analyses

1a: Teacher survey

Achievement for All

Survey for Teachers of Children and Young People with Special Educational Needs and Disabilities (SEND)

This survey is being conducted with teachers of children and young people with a range of SEND. It is for use in the national evaluation of a government initiative called Achievement for All. The first few questions in the survey are designed to allow us to match your responses to data about your pupils that are held within our secure database. Please note that you will not be asked to provide your pupil name. All responses will be completely anonymous and treated as confidential.

Section 1 – ABOUT THE PUPIL

1. Please select your Local Authority

Bexley		Coventry		Essex		Nottinghamshire		Redcar & Cleveland	
Camden		East Sussex		Gloucestershire		Oldham		Sheffield	

2. Please tell us the name of your pupil's school :

3. Please tell us the year group that your pupil is currently in:

Year 1		Year 5		Year 7		Year 10	
Year 2		Year 6		Year 8		Year 11	

4. Please tell us your pupil's date of birth

Date of birth	d	d	/	m	m	/	y	y

5. If you know, please indicate your pupil's primary SEND (special educational need or disability) :

Specific Learning Difficulty (e.g. dyslexia)		Autistic Spectrum Disorder	
Moderate Learning Difficulties		Visual Impairment	
Severe Learning Difficulties		Hearing Impairment	
Profound and Multiple Learning Difficulties		Multi-Sensory Impairment	
Behavioural, Emotional and Social Difficulties		Physical Disability	
Speech, Language and Communication Difficulties		Don't know	

6. If you know, what level of support is your pupil getting at school?

School Action (*my pupil is supported by teachers and teaching assistants in school)*	
School Action Plus (*my pupil is supported by teachers and teaching assistants in school AND at least one other specialist visits the school to provide support)*	
Statement of SEND (*my pupil has a Statement of Special Educational Needs issued by the Local Authority)*	
No longer on the special needs register	
Don't know	

7. Please select your pupil's gender

Male		Female	

8. Please tell us your pupil's UPN (13 character unique pupil number):

Section 2 – ABOUT YOUR PUPIL'S BEHAVIOUR

Please read each of the following statements about your pupil's behaviour and indicate how often each occurs.

		Never	***Rarely***	***Sometimes***	***Often***
1	The pupil does as he/she is asked				
2	The pupil cheats and tells lies				
3	The pupil takes things that do not belong to him/her				
4	The pupil breaks or spoils things on purpose				
5	The pupil behaves well when unsupervised				
6	The pupil gets angry and has tantrums				
7	The pupil gets in fights with other children				
8	The pupil says nasty things to other children				
9	The pupil takes responsibility for his/her actions				

Section 3 – ABOUT YOUR PUPIL'S RELATIONSHIPS WITH OTHER PEOPLE

Please read each of the following statements about your pupil's relationships with other people and indicate the extent to which you agree.

		Strongly Disagree	***Disagree***	***Agree***	***Strongly Agree***
1	The pupil has at least one good friend				
2	The pupil can compromise with other children (e.g. take turns)				
3	The pupil is helpful towards others				
4	The pupil is popular with other children				
5	The pupil has a good relationship with at least one teacher				
	The pupil can compromise with teachers (e.g. will complete a difficult task before moving on to a preferred activity)				
7	The pupil is kind towards others				
8	The pupil makes friends easily				
9	The pupil will approach groups of children				
10	The pupil can join in other children's activities				

Section 4 – ABOUT YOUR PUPIL'S EXPERIENCE OF BULLYING

By *bullying* we mean *"behaviour by an individual or group, usually repeated over time, that intentionally hurts another individual or group either physically or emotionally"* (DCSF, 2008, p.1).

Please estimate how frequently your pupil is involved in incidents of bullying.

Daily		Weekly		Termly		Not involved	

Please indicate his/her typical role in such incidents.

Victim		Bully		Bully and victim		Bystander		Not involved	

Please read each of the following statements about your pupil's experiences of bullying and indicate how often each example occurs.

		Never	*Rarely*	*Sometimes*	*Often*
1	The pupil is picked on by other children				
2	The pupil is hurt by other children (e.g. gets pushed or kicked)				
3	The pupil is called names or teased by other children.				
4	Other children spread unkind gossip about the pupil.				
5	The pupil is bullied over the internet and/or by text message				
6	Other children stop the pupil from joining in their games and activities at break-times.				
7	The pupil is actively disliked by other children				
8	Other children stop the pupil from joining in during class activities				
9	The pupil is picked on because of his/her special needs				

Thank you very much for completing the survey.

Your responses are completely anonymous and will be treated as confidential.

Please return the survey to:

FREEPOST RLYU-KAAB-AXRC
University of Manchester
Mrs Judith Hebron,
School of Education,
Oxford Road,
Manchester, M13 9PL

There will be another survey that you will be asked to complete in June 2011. We will send you a reminder about this survey closer to the time. If you have any queries about this research project, please contact Judith Hebron on 0161 275 3522.

1b: Parent survey

Achievement for All

Survey for Parents of Children and Young People with Special Educational Needs and Disabilities (SEND)

Thank you for agreeing to complete a survey about your child. This survey is being conducted with parents of children and young people with a range of special educational needs. It is for use in the national evaluation of a government initiative called Achievement for All. This is the final survey for the National Evaluation of Achievement for All. Your responses are vital to the robust analysis of this initiative, we would greatly appreciate your cooperation with this survey at this final stage.

The first few questions in the survey are designed to allow us to match your responses to data about your child that are held within our secure database. Please note that you will not be asked to provide your child's name. All responses will be completely anonymous and treated as confidential.

Section 1 – ABOUT YOUR CHILD

1 Please select your Local Authority

Bexley		Coventry		Essex		Nottinghamshire		Redcar & Cleveland	
Camden		East Sussex		Gloucestershire		Oldham		Sheffield	

2 Please tell us the name of your child's school

School name	

3 Please tell us your child's year group

Year 1		Year 5		Year 7		Year 10	
Year 2		Year 6		Year 8		Year 11	

4 Please tell us your child's:

Date of birth	d	d	/	m	m	/	y	y

5 If you know, please indicate your child's primary SEND (special educational need or disability)

Specific Learning Difficulty (e.g. dyslexia)		Autistic Spectrum Disorder	
Moderate Learning Difficulties		Visual Impairment	
Severe Learning Difficulties		Hearing Impairment	
Profound and Multiple Learning Difficulties		Multi-Sensory Impairment	
Behavioural, Emotional and Social Difficulties		Physical Disability	
Speech, Language and Communication Difficulties		Don't know	

9. If you know, what level of support is your child getting at school?

School Action (*my child is supported by teachers and teaching assistants in school)*	
School Action Plus (*my child is supported by teachers and teaching assistants in school AND at least one other specialist visits the school to provide support)*	
Statement of SEND (*my child has a Statement of Special Educational Needs issued by the Local Authority)*	
No longer has SEND (special educational need or disability)	
Don't know	

10. Please select your child's gender

Male		Female	

11. Please tell us the first two letters of your child's first name e.g. For 'John', J O

1st letter	2nd letter

12. Please tell us the first two letters of your child's surname e.g. For 'Smith', S M

1st letter	2nd letter

Section 2 – ABOUT YOUR CHILD'S BEHAVIOUR

Please read each of the following statements about your child's behaviour and indicate how often each occurs.

		Never	*Rarely*	*Sometimes*	*Often*
1	My child does as he/she is asked				
2	My child cheats and tells lies				
3	My child takes things that do not belong to him/her				
4	My child breaks or spoils things on purpose				
5	My child behaves well when unsupervised				
6	My child gets angry and has tantrums				
7	My child gets in fights with other children				
8	My child says nasty things to other children				
9	My child takes responsibility for his/her actions				

Section 3 – ABOUT YOUR CHILD'S RELATIONSHIPS WITH OTHER PEOPLE

Please read each of the following statements about your child's relationships with other people and indicate the extent to which you agree.

		Strongly Disagree	***Disagree***	***Agree***	***Strongly Agree***
1	My child has at least one good friend				
2	My child can compromise with other children (e.g. take turns)				
3	My child is helpful towards others				
4	My child is popular with other children				
5	My child has a good relationship with at least one teacher				
6	My child can compromise with teachers (e.g. will complete a difficult task before moving on to a preferred activity)				
7	My child is kind towards others				
8	My child makes friends easily				
9	My child will approach groups of children				
10	My child can join in other children's activities				

Section 4 – ABOUT YOUR CONFIDENCE/ ENGAGEMENT WITH YOUR CHILD'S SCHOOL

Please read each of the following statements about your confidence and engagement with your child's school and indicate the extent to which you agree.

		Strongly Disagree	***Disagree***	***Agree***	***Strongly Agree***
1	The school gives me information I need about my child				
2	The school involves me in my child's learning				
3	The school tells me about my child's successes				
23	I feel that the school listens to me				
4	I am confident that the school can meet my child's needs				
5	The school involves me in decisions affecting my child's education				
6	I can contact the school easily if I am worried about my child				
7	I have a good relationship with teachers at my child's school				

Section 5 – ABOUT THE WIDER PARTICIPATION ACTVITIES AT YOU CHILD'S SCHOOLS

By *wider participation* we mean things like extra-curricular activities (e.g. study support, sport, music), breakfast club, childcare, parenting support, and access to specialist services (e.g. speech and language therapists) and school facilities (such as computers) that have been made available to you and your child.

Please read each of the following statements about the wider participation activities at your child's school and indicate the extent to which you agree.

		Strongly Disagree	***Disagree***	***Agree***	***Strongly Agree***
1	My child often attends wider participation activities at his/her school				
2	The wider participation activities on offer are of interest to my child				
3	There is a varied range of wider participation activities available for my child				
4	My child looks forward to taking part in wider participation activities				
5	Taking part in wider participation activities has been good for my child's development				
6	I have been able to access wider participation activities at my child's school				
7	I am happy with the wider participation activities available to me and my child.				
8	My child can access wider participation activities				

Section 6 – ABOUT YOUR CHILD'S EXPEREINCE OF BULLYING

By *bullying* we mean *"behaviour by an individual or group, usually repeated over time, that intentionally hurts another individual or group either physically or emotionally"* (DCSF, 2008, p.1).

Please estimate the how frequently your child is involved in incidents of bullying.

Daily		Weekly		Termly		Not involved	

Please indicate his/her typical role in such incidents.

Victim		Bully		Bully and victim		Bystander		Not involved	

Please read each of the following statements about your child's experiences of bullying and indicate how often each example occurs.

		Never	***Rarely***	***Sometimes***	***Often***
1	My child is picked on by other children				
2	My child is hurt by other children (e.g. gets pushed or kicked)				
3	My child is called names or teased by other children.				
4	Other children spread unkind gossip about my child.				
5	My child is bullied over the internet and/or by text message				
6	Other children stop my child from joining in their games and activities at break-times.				
7	My child is actively disliked by other children				
8	Other children stop my child from joining in during class activities				
9	My child is picked on because of his/her special needs				

Thank you very much for completing the survey.

Your responses are completely anonymous and will be treated as confidential.

Please return the survey to:

FREEPOST RLYU-KAAB-AXRC
University of Manchester
Judith Hebron,
School of Education,
Oxford Road,
Manchester, M13 9PL

This is the final Achievement for All pupil survey. Your input has been vital to the robust evaluation of this initiative and we greatly appreciate you cooperation.

If you have any queries about this research project, please contact Judith Hebron on 0161 275 3522.

1c: Items retained after the psychometric analysis of WOST

Behaviour

		Never	*Rarely*	*Sometimes*	*Often*
1	The pupil cheats and tells lies				
2	The pupil takes things that do not belong to him/her				
3	The pupil breaks or spoils things on purpose				
4	The pupil gets angry and has tantrums				
5	The pupil gets in fights with other children				
6	The pupil says nasty things to other children				

Bullying

		Never	*Rarely*	*Sometimes*	*Often*
1	The pupil is picked on by other children				
2	The pupil is hurt by other children (e.g. gets pushed or kicked)				
3	The pupil is called names or teased by other children.				
4	Other children spread unkind gossip about the pupil.				
5	Other children stop the pupil from joining in their games and activities at break-times.				
6	The pupil is actively disliked by other children				
7	Other children stop the pupil from joining in during class activities				

Positive relationships

		Strongly disagree	*Disagree*	*Agree*	*Strongly agree*
1	The pupil can compromise with other children (e.g. take turns)				
2	The pupil is helpful towards others				
3	The pupil is popular with other children				
4	The pupil can compromise with teachers (e.g. will complete a difficult task before moving on to a preferred activity)				
5	The pupil is kind towards others				
6	The pupil makes friends easily				
7	The pupil can join in other children's activities				

1d: Items retained after the psychometric analysis of WOSP

Behaviour

		Never	*Rarely*	*Sometimes*	*Often*
1	My child does as he/she is asked				
2	My child cheats and tells lies				
3	My child takes things that do not belong to him/her				
4	My child breaks or spoils things on purpose				
5	My child behaves well when unsupervised				
6	My child gets angry and has tantrums				
7	My child gets in fights with other children				
8	My child says nasty things to other children				
9	My child takes responsibility for his/her actions				

Bullying

		Never	*Rarely*	*Sometimes*	*Often*
1	My child is picked on by other children				
2	My child is hurt by other children (e.g. gets pushed or kicked)				
3	My child is called names or teased by other children.				
4	Other children spread unkind gossip about my child.				
5	Other children stop my child from joining in their games and activities at break-times.				
6	My child is actively disliked by other children				
7	Other children stop my child from joining in during class activities				
8	My child is picked on because of his/her special needs				

Positive relationships

		Strongly disagree	*Disagree*	*Agree*	*Strongly agree*
1	My child can compromise with other children (e.g. take turns)				
2	My child is helpful towards others				
3	My child is popular with other children				
4	My child can compromise with teachers (e.g. will complete a difficult task before moving on to a preferred activity)				
5	My child is kind towards others				
6	My child makes friends easily				
7	My child can join in other children's activities				
8	My child has at least one good friend				
9	My child has a good relationship with at least one teacher				
10	My child can approach groups of children				

Engagement and confidence

		Strongly disagree	*Disagree*	*Agree*	*Strongly agree*
1	The school gives me information I need about my child				
2	The school involves me in my child's learning				
3	The school tells me about my child's successes				
4	I feel that the school listens to me				
5	I am confident that the school can meet my child's needs				
6	The school involves me in decisions affecting my child's education				
7	I can contact the school easily if I am worried about my child				
8	I have a good relationship with teachers at my child's school				

Wider participation

		Strongly disagree	*Disagree*	*Agree*	*Strongly agree*
1	My child often attends wider participation activities at his/her school				
2	The wider participation activities on offer are of interest to my child				
3	There is a varied range of wider participation activities available for my child				
4	My child looks forward to taking part in wider participation activities				
5	Taking part in wider participation activities has been good for my child's development				
6	I have been able to access wider participation activities at my child's school				
7	I am happy with the wider participation activities available to me and my child.				
8	My child can access wider participation activities				

1e: Psychometric properties of the *WOST* and *WOSP*

Content validity evaluates the extent to which items in a questionnaire represent the concepts of interest. Both the *WOST* and the *WOSP* are considered to have good content validity in five key areas in which the designers of the measure must have clearly stated objectives in terms of measurement aims, target population, concepts, the selection and reduction of items, and the interpretability of items. All of these areas were clearly described, including the construction of the items and sub-scales (as described in the section on survey design in section 3.7.1).

Internal consistency examines the correlation of items within a sub-scale to ensure that they are measuring the same concept. Confirmatory factor analysis was conducted using the seven of the most commonly used "fit" criteria. All but one of the tests either had an "exact fit" or "close fit", with a "close fit" considered acceptable in the analysis, due to the increased risk of Type II errors associated with "exact fit" criteria (Humphrey et al., 2011). Another measure of internal consistency used was Cronbach's Alpha (α) where $\alpha > .7$ is an accepted threshold. All of the sub-scales in the *WOST* and *WOSP* exceeded this threshold.

Criterion validity assesses whether scores on a measure can be related to a "gold standard" in the field. It was not possible to assess this principle due to the lack of "gold standard" instruments used in some of the sub-scales (e.g. Wider Participation), and also because of the unreasonable additional burden that this would have placed on survey respondents.

Construct validity refers to the internal structure of a measure and the extent to which it conforms to other measures and theory. This was assessed by testing the sub-scales with some pre-specified hypotheses based on literature in the area. For example, "*behaviour and bullying will be positively correlated; in turn they will both be negatively correlated with positive relationships*" (p. 120). All of the results were statistically significant and demonstrated good construct validity for the WOST and *WOSP*.

Reproducibility concerns the stability of a measure and can be assessed by examining agreement and reliability. This was not possible with the WOST and *WOSP* as assessments of test-retest reliability are normally expected to take place

within much shorter time-scales than were possible in the *AfA* evaluation. However, it was feasible to explore the agreement between teachers and parents on the three shared domains (Bullying, Behaviour and Positive Relationships). A benchmark co-efficient of .27 was set, as this was found to be the average correlation between teacher and parent responses in a meta-analysis of cross-informant ratings (Achenbach et al., 1987). This benchmark was comfortably exceeded for all three domains (Bullying = .368; Behaviour = .483; Positive Relationships = .344).

Responsiveness is the ability of a measure to detect change over time. This was limited by the absence of test-retest data.

Floor and ceiling effects occur when a large proportion of respondents score the lowest (floor) or highest (ceiling) possible scores in a measure and which can affect the sensitivity of a test. Terwee et al. contend (2007) that this can happen when the effects exceed 15%. However, other well-known and accepted measures that assess similar domains have much higher floor and ceiling effects (e.g. the *SDQ*, Goodman, 2001)[25], and it is plausible to accept that such effects will be present in the case of measures assessing domains in which a majority of children are not affected (e.g. bullying and behaviour problems). Floor effects were present for the WOST for Behaviour (35%), and in the WOST and *WOSP* for Bullying (37% and 33% respectively), with ceiling effects only observed in the *WOSP* for Positive Relationships (16%), Parental Engagement, and Confidence (26%).

Interpretability refers to the extent to which "one can assign qualitative meaning to quantitative scores" (Terwee et al., 2007, p. 37). The *WOST* and the *WOSP* have normative information available giving means and standard deviations of scores obtained by a reference population (in the AfA evaluation this was pupils with SEND) and sub-groups (i.e. different SEND-types, gender, age). Normative scores for each sub-scale of the *WOST* and *WOSP* are included in the Appendices of the *AfA* final report (Humphrey et al., 2011).

[25] The SDQ (Goodman, 2001) has floor effects of 64.2% for teacher responses and 32.1% for parent responses (www.sdqinfo.org)

Appendix 2: Interview schedules (examples)

2a: Case Study Schools

Key Teacher (AfA visit 3/5)

Year 1 Recap

1. In your opinion, at a classroom level how has the first year of AfA gone?
    i What aspects of AfA have worked well?
    ii What aspects of AfA have presented challenges?
    iii What have you learnt from the first year of AfA?
    iv Have you changed/altered any practises for the second cohort?
2. How has the school prepared the second cohort of AfA pupils?
    i Was there any sort of handover of key pupils from the previous key teacher (if there was one)?
    ii Was extra training provided? If so by whom, e.g. in-school, LA wide?

The next set of questions focus on your experiences as a key teacher for your pupils involved in AfA. Please answer using specific examples of these pupils where possible.

Strand 1

3. How have you found assessing and tracking academic data for your key pupils?
    i How has this data been used at a classroom level?
    ii Has tracking your key pupils changed the provision in place for them?
    iii Have you any impressions of impact – is there evidence of the gap closing between children with SEND and their peers? Why do you think this may be?
4. Are there occasions where the pupils seem more confident about their knowledge? Why do you think this is?
    i Or, what might lead them to doubt their knowledge?
5. Do you ever feel that pupils respond to your lesson as if they know less than they do?
    i Is there anything that you can do to encourage children to express understanding of which they might be uncertain?
    ii Why might the pupils not be giving ideas of which they are capable? Are there any classroom factors that may influence this?
    iii Why might children not ask for help? Is there anything that you can do about it?
    iv How can you encourage children to explore their own ideas?

6. What would you understand by the phrase ‘collaborative study between teacher and pupil’? Is this possible in your lessons?
    i Are there any opportunities to talk to children privately about what they know / their understanding of the curriculum?

Strand 2

7. What progress have you made in conducting structured conversations with parents of your key pupils?
8. What, in your opinion, has been the impact of these conversations for your key pupils?
    i Can you provide some examples of how the structured conversations have impacted on provision for your key pupils?
    ii Do you think it has improved relationships with parents? How?

Strand 3

9. How is the school progressing with strand 3 of AfA, the wider outcomes?
    i Have you received any specific training for your chosen wider outcomes? If so, by whom, and how did it come about?
    ii How much progress have you made with this strand of AfA?
    iii What have been the key challenges for this strand?
    iv What has facilitated embedding this strand within school practice?
10. **Attendance**
    i Did any of your key pupils have any problems with attendance and if so has this changed? In what ways?
    ii What schemes/activities are you using to improve attendance?
    iii How successful have these been?
11. **Behaviour**
    i Do any of your key pupils have any behavioural difficulties OR do they generally behave well in school?
    ii In what way?
    iii What influences their behaviour at school?
    iv What schemes/activities are you using improve behaviour?
    v How successful have these been?
12. **Positive relationships**
    i Do your key pupils tend to get on well with classmates and teachers?
    ii Do you think that pupil’s relationships with each other influence the way that they respond in lessons?
    iii Do you think that the pupil’s relationships with you influence the way that they respond in lessons?
    iv Do you think that pupil’s relationships with each other influence the way that they learn?

v Do you think that pupil's relationships with you influence the way that they learn?
vi What schemes/activities are you using to develop positive relationships?
vii How successful have these been?

13. **Bullying**
    i Do you think the school has an effective strategy for dealing with bullying and has this changed since last September?
    ii Do you think bullying is an issue in your school, or is it quite rare?
    iii Are any of your key pupils involved in bullying? If so, what sort of bullying and how was this dealt with?
        (1) If a victim ask - Why do you think this pupil has been bullied?
        (2) If a bully ask – Why do you think this pupil acts as bully?
    iv What schemes/activities are you using eliminate bullying?
    v How successful have these been?
14. **Wider participation activities**:
    i Do you know if your key pupils participate in any extra-curricular activities? If so, what kinds of things?
    ii What has helped them to be able to participate in these activities?
    iii If none, why not and what would help their engagement?
    iv Has the provision for extra-curricular activities and wider participation changed since last September?
    v What schemes/activities are you using to increase participation in wider activities?
    vi How successful have these been?

General (if not covered)

15. Can you give me a few specific examples of some of the work you are doing with your key pupils?
    i How and why did you decide on these approaches for your key pupils?
    ii How have the pupils responded to this?
16. Have you noticed any impact for your key pupils as a result of the provision offered for the wider outcomes?
    i If so in what ways?

Next steps

17. What are your key priorities as a key teacher for AFA over the coming months?

2b: Case Study Schools

Parent Interview (AfA visit 3/5)

1. Has provision for your child's special educational needs changed in the last year?
    i What has the school done to help your child?
    ii Does the school review how they help your child? Are you involved in this process?
    iii Have you noticed any changes in the provision for your child over the past year? How and why?

2. Has your child's key teacher changed since last year?
    i If so, why did they change key teacher?
    ii Are you happy with this?
    iii Do you know how the school dealt with the change of teacher? e.g. was there any sort of hand over of information, did you meet with the new key teacher beforehand?

I am going to ask you about 5 areas that we are interested in as part of our project. These are

- **attendance**
- **behaviour**
- **positive relationships**
- **bullying**
- **parental engagement/confidence**

3. Attendance?
    i Have there been any changes in your child's attendance or attitude towards coming to school over the last year? In what ways?
    ii Do you know what the school has done to try to improve attendance?

4. Has your child's behaviour changed over the past year?
    i If so, in what way?
    ii What influences their behaviour at school? (in school and outside of school factors)
    iii Do you know what the school has done to try to improve behaviour? Has this worked and why?

5. Have your child's relationships with his/her peers and/or teachers changed over the past year?
    i If so, how?
    ii Do you think that your child's relationships with his/her classmates influence the way that he/she responds in lessons?
    ii Do you think that your child's relationships with the others in the class influence the way that he/she learns?
    iii Do you know what the school has is doing to promote positive relationships with other? If so, is it working for your child?
    iv Do you think that your child's relationships with teachers influence the way that they respond in lessons?
    v Do you think that your child's relationships with teachers influence the way that they learn?

6. Have there been any incidents of bullying over the past year or since my last visit? Can you tell me about them?
    i Has your child been involved in bullying? If so, what sort of bullying and do you know what the school has done to deal with it?
    ii Do you have any idea why your child might have been a victim (or perpetrator) of bullying? Are there any particular triggers you can think of?
    iii How does your child react to bullying or teasing?
    iv Do you know what the school has done to try to eliminate bullying?

7. What kinds of extra-curricular activities does your child engage with?
    i Has there been an increase in the amount and variety of clubs and extra-curricular activities on offer at the school for your child?
    ii Has your child taken up any of these activities? Can you tell me about them?

Parental engagement and confidence

8. Are you happy with the level of parent engagement at the school? Why?
    i How does the school communicate with you?

9. How many structured conversations have you had with your child's key teacher?
    i Were all these conversations carried out similarly? i.e. were they the same amount of time, same detailed discussion?
    ii Was there anything you would change about the process?

10. Were the outcomes and plans documented?

i How? i.e. did you see/agree a record of outcomes?
ii Are you aware that these plans been implemented?

11. Have there been any changes as a result of the conversation?
    i Has your child made progress on the agreed targets?
    ii Would you say you have seen an impact in these areas?

Academic progress

12. Have you noticed any improvement in your child's academic achievement?
    i If so, in what way and what do you think has been responsible for these improvements?
    ii If not, why not?

13. In the classroom, what might lead to your child doubting his/her knowledge?
    i Are there ways that teachers can encourage your child to express understandings that he/she might be uncertain of?
    ii Why might your child not be giving ideas that he/she capable of? Are there any classroom factors that may influence this?
    iii Why might your child not ask for help? Is there anything that teachers can do about it?
    iv How can teachers encourage your child to explore his/her own ideas?
    v What would you understand by the phrase 'collaborative study between teacher and pupil'? Is this possible with your child?
    vi Are there any opportunities for teachers to talk to your child privately about what they know (or their understanding of the curriculum)?

General

14. Is there anything additional that you would like the school to do or offer for you or your child?

2c: Case Study Schools

School pupil Interview (*AfA* Visit 3/5)

N.B. All of the questions outlined below will be adapted according to the pupil's age, primary need, provision etc. In some cases not all questions will be asked.

Warm up

1. "Can you tell me about any hobbies you have? What is your favourite thing to do when you're not in school?"

2. Can you tell me who your key teacher is? (the teacher that takes you for extra work?) *Prompt with teacher name.*

3. How often do you do work with them?

4. Do you do this on your own, or in a small group?

5. What sorts of things do you do? Can you give me an example of something you have worked on together?

- Do you like this?
- Do you feel it is helping you?
- In what way?
- Is there anything else you would like them to do to help you?

6. What sorts of difficulties do you have in class?

7. Do you think that teachers can help you learn things?
   - What do they do to help you?
   - Do they do anything which doesn't help you?
   - Do the teachers ask you how you would like them to help you?

8. Do you ever ask for help from teachers?
   - Can you think of anything that you have asked a teacher to help you with?
   - Have you ever told anyone when you didn't understand something in a lesson?
   - Does anything put you off from asking for help?

9. Can other children in your class help you to learn things?
   - What can they do to help?
   - Do they ever do things that stop you from learning?

10. Sometimes teachers ask the whole class a question and wait for people to put their hands up with answers. Do you ever give answers?

- What does it feel like when you do that? Exciting, scary, something else?
- Do you ever think you know the answer but wait for someone else to give the answer?
- Why do you do that?
- Are there some times at school when you find it easier to give answers?
- What is special about that time?

11. Sometimes teacher ask the class to work in pairs or bigger groups. Does you teacher do that?
    - Do you like working that way? Is it different?
    - Do you ever tell other children in the class if you know something?
    - Do you ever tell them when you don't know something?
    - Does it depend on who is in your group? What is it that makes some children easier to talk to about school work?

12. Do you like going to school?
    - What do you like / dislike about going to school?
    - Do you have many days off school?
    - Do you know what the school has done to try to make children want to come to school more often?

13. Do you think your class is a well-behaved class?
    - Do you think you behave well at school? Why / why not?
    - Do you know what the school has done to try to help children to behave well?
    - Has this worked and why?

14. Do you get on well with your classmates?
    - Tell me about your friends.
    - Does having friends in (or getting on well with the people in) your class make it easier or harder to learn?
    - How does it make a difference? Can you think of any times when this happened?

15. Do you get well on with your teachers?
    - Do you think that having a friendly or helpful teacher makes it easier to learn?
    - How does it make a difference?

16. Can you tell me what bullying is?
    - Do you know if there is any bullying going on at your school?
    - Do you know what the school has done to try to stop bullying?
    - Do you think the school has a good way of dealing with bullying?
    - Have you ever been involved in bullying? Can you tell me about it?
    - How did it make you feel?
    - Who bullied you? (Older / younger children?)
    - Why do you think these other children bullied you?
    - What happened at school when you were bullied?
    - Do you still get bullied?

- Do you think there is anything you can do to stop it from happening?

17. Do you do to any after school clubs?
    - What sorts of things do you do? Tell me about them.
    - What sort of clubs would you be interested in going to? Why?
    - Do you think there is a good range of things the school offers you to do?
    - Is there anything else you would like the school to do, that you would take part in?

18. Does you know how the school lets your parents know how you are doing at school? e.g. letters, reports, parents evenings?

19. Do teachers have meetings/talks with your parents?
    - Do you know how often they have these meetings?
    - Are you ever part of the meetings?
    - Do they let you know what happened at the meetings? How, do your parents tell you, or does your teacher tell you?
    - Has this changed over the past year? If so, in what way?

20. Do you know how well you are doing with your school work?
    - How do your teachers let you know how you are doing?
    - Do you think you are improving in your school work? Why?

2d Example of interview with parents
Reference: Parents 2 (*AfA* visit 2/5)
P1 = mum
P2 = dad

I: Yeah so this is the interview with Robbie's parents, I was just wondering if you to start off with if you could tell me a little bit about Robbie and what his additional needs are and what sort of support the school provides?
P: Okay
P2: One to one really isn't it, most of the time?
P1: He's got teaching support at school in reception year he just was helped by a teaching assistant within the class which has sort of helped him really
I: Yeah.
P1: because it wasn't until he got to school age that they picked up on it really.
P2: Well is not nursery's job to do that is it really?
P1: No cause he went to nursery before school cause we both work so three days a week he went to nursery and they used to say he was quite quiet and a little introvert you know, happy on his own.
P2: Playing by himself.
P1: They never really picked anything up and it was in reception that one of his class teacher actually spotted um sort of differences in him I suppose and we went and had a chat with her and she referred him to (SEN LA Centre) who did an assessment on him and then we went away and then we came back and then they did another one and I think last time we went they said he was on the autistic spectrum and because he's on the autistic spectrum they can get an actual
P2: Funding.
P1: funding I suppose and he's got teaching support now, so he's got two with him now, there's a lady who does the mornings and one who does the afternoon.
I: Hmm.
P1: and its not primarily for Robbie so much it's for the rest of the class as well
I: Hmm.
P1: 'cause Robbie his attention's not brilliant so sometimes if they're doing something like carpet time he'll get up and wander off somewhere.
P2: He'll distract the class.
I: Right.
P1: Yeah he doesn't disrupt as in he's naughty disrupt but he needs to be kept an eye on individually I think.
I: Yes.
P1: And I know the teacher she's got thirty other kids to look after so they've just got somebody to keep an eye on and just help him along which they do they do a lot at the school I've got to say it they've been great at the school haven't they?
I: Oh super yes. Are other external services involved now or now diagnosis has been made is that ...?
P1: Well (LA SEN Centre) said that they'd be in touch with us this sort of term and they did when we went last year they put a report in the post which we've never had but I don't know whether they're just inundated there or what
I: Right.
P1: they sort of see us and have a chat with us for half an hour and then we go really.
I: Hmm. (3rd party interruption)

P1: So yeah we've been to (LA SEN Centre) two or three times um but most of it is within the school
I: Yes.
P1: and they have, obviously I have five minutes in the morning usually just to have a quick chat with the teaching support
I: Yes.
P1: we have meetings at school um every I don't know about three or four months really just with the Head and the special needs co-ordinator at the school and the class teacher and the teaching support. Just get together.
P2: Keeps everyone up to date.
I: So there's quite a lot of support and communication?
P1: Yeah yeah and I mean he's, we they've actually got we've got a meeting in a couple of weeks actually cause obviously he'll be going up to the new term in September
I: Oh yes.
P1: so its new teacher, class room and where he is now he's at the other end of the school and they'll go in a different door, come out a different door
I: Right.
P1: so we're going to have to just um have a chat about that really and just see if there's anything we can put in place to help him along really.
I: Yes, does he find the change in routine quite difficult?
P1: Yeah yeah he would do yeah.
I: Okay if I move onto the five areas that the government have asked us specifically
P1: Right.
I: they're the ones the same as in the survey you did. Um I know it's very early days obviously because he's only year one but has he ever had any issues with attendance?
P1: No no in fact he didn't have a day off at all last year.
I: Wow that's typical from the school isn't it?
P1: very good so he actually quite likes going to school.
I: That's good.
P1: Yeah he's quite keen when he gets there sometimes he'll play up and I think sometimes because something will happen between here and the school that puts him off his little kilter really
I: Hmm.
P1: but going into school he's quite happy.
I: Okay and does he have any behavioural difficulties at school at all?
P1: I don't know his attention sometimes can be quite difficult.
I: Hmm.
P2: I think it's hard to differentiate behavioural difficulties with his other problem
I: Right yes.
P2: whether it's the same difficulties as a normal child or is it because of his autism?
P1: Yeah. I think I mean you go in in the morning and the boys especially aren't they, notorious for it they're charging around the playground kicking and bashing and falling over and banging
P2: Yes.
P1: you look at them and think well Robbie's no different to them really but at the same time he does have certain, I think within school, I think it's his attention really and its doing things in a routine he likes to do things in a certain way and I think

sometimes they have, like I say they go in to the ICT suite to have computers he likes to go and work on his certain computer and sit at a certain desk
I: Yes.
P1: and sometimes if another child wants to go sort of you know 'I want to go there' and I know sometimes that whole taking turns and sharing, it doesn't matter which computer you're sat at as long as you're sat at one
I: Hmm.
P1: and I think that's the only thing he struggles with really, I think his writing isn't up to par.
P2: His reading and writing.
I: Hmm.
P1: Yes he learns to read and he learns words by memorising the word rather than 'r o' 'r d' he'll see that and he'll know that those four letters together spell a word
I: Yes.
P1: so that's how... so reading wise they say he's alright with cause he's got a very good memory but his writing isn't brilliant and his spellings fine cause doing it on the keyboard is fine its just actual pen in his hand
I: Right.
P1: he's never been a big drawer, writer, painter um you know you get these kids like I say at nursery they used to get the paints out and draw and colour and he was never a big fan of that.
I: Hmm.
P1: So I think getting him to actually pick up a pencil and get involved is sometimes a real struggle.
P2: He'd rather click a mouse.
I: Oh so he likes computers does he, stuff like that?
P1: Oh yes, he's good on it as well. He's very good on it.
I: Yeah yes and in terms of I suppose relationships with others how well does he get on with his classmates?
P1: He gets on alright with them again if it's on his terms
I: Hmm.
P1: he'll be quite happy to play alongside sometimes but he does go off, he'll play a game on his own he does like to play on his own and he he'll very rarely join in really.
I: Hmm.
P1: I mean he'll run around and play on the outskirts and I think he wants to
P2: He wants to join in.
I: Yes yeah.
P2: And sometimes he gets upset cause he doesn't understand why he can't join in.
I: Hmm.
P1: I mean he did join a football club at school because he said he wanted to try they had a football club at school
I: Oh yes.
P1: and it was after school only half an hour
I: Hmm.
P1: and he went there a couple of times but he didn't like it 'cause it was too noisy and too loud
I: Hmm.
P1: and sometimes kids pushing and shoving. I mean you touch him he doesn't like he's not bothered with people touching him but I think the pushing and shoving and

the noise got a bit much for him. So I think he's quite happy playing around the sort of outside of a group
I: Hmm.
P1: but you know one to one he's a lot better with.
I: Yeah.
P1: If he finds one of the children, he goes to the after school club a couple of days a week
I: Hmm.
P1: I work till five um and what there's a little boy that goes there that he'll play with quite happily but if somebody else comes to join in Robbie will go off he won't ...
I: Right so he's happy with one child?
P1: One to one he's a lot better with than a group yeah.
I: More difficult in a group. Yes okay.
P1: And I think sometimes kids don't get him either, if he's charging about getting a bit over excited or...
I: Hmm.
P2: He can be a bit, what do you call it, rough, and he doesn't know it.
I: Right.
P1: And it's like today with Amy she was putting the watering can in the pool and he didn't want her to cause she was taking the water out the pool and he didn't want it go to down and he was like 'Amy no don't do it don't ...' and she's sort of that's Robbie but other children will find it a bit…
I: Yes.
P1: he does have some sort of little friends at school but it's the odd select few
I: Right.
P1: and you do find it's the very sort of quiet and shy ones that Robbie tends to go with rather than big loud noisy ones.
I: Yeah.
P1: Whether that's just more they're just more approachable to him maybe.
P2: I mean he's always made friends well with Asian boys
P1: Yes he does doesn't he?
P2: and coloured boys somehow he's always made friends with them really.
P1: Yes he does tend to, I don't know whether that's anything, he does tend to quite like the sort of Asian kids.
I: Right.
P1: Whether that's because they're a bit more confident or whether they've got a different look to their face because they're a bit softer in their features but um yes.
I: That's interesting, what about with the teachers does he get on well with the teachers?
P2: He's more comfortable with adults.
P1: Right.
I: Right.
P1: He is a lot more comfortable around adults than the children and again whether that's because they just feel safer to him because they're sort of more authoritative to him I don't know.
I: Yes its possible isn't it?
P1: His teaching support his class teacher at school he's a lot more comfortable around older people, adults.
I: And do you think having a good relationship around those adults has an impact on his learning on his education?

P1: Yes.
P2: Well it makes him do what they ask him to at school.
P1: Yeah he's a real ...
P2: If he didn't have that relationship with teachers I don't think he'd be so keen to go.
I: Hmm. And he likes school doesn't he?
P2: Yeah.
P1: And he likes to please as well and sometimes you know he does something
P2: Little things are big things for Robbie.
P1: yeah and ...
P2: If he achieves just one little thing it's a big thing.
P1: yeah and I think the adults he'll go up to a child at school and say 'look what I've done' and they'll say 'that's nice' whereas the adults will go 'wow' he loves he loves
I: The impact.
P1: yes he loves to think that he's actually pleased people and done done good things doesn't he?
I: Yeah and are you aware of anything the school's doing to promote positive relationships within the school? You know some schools have major projects and stuff like that I just wondered whether you were aware ...?
P1: Well they do that Achievement For All don't they, and you know some of the groups that they do they try to get him involved in.
I: Hmm.
P1: And I know at circle time and show and tell they try and encourage Robbie to get in there and get involved as well.
I: Right and is that working for him?
P1: A couple of times yeah he wouldn't have done it this time last year but little by little but again that's because he's built that trust up, and with support and somebody encouraging him he'll actually do it now. But again there are lots of things within school, they are always doing tennis clubs (3rd party interruption) I've lost my ... yeah they do all sorts after school they do football club and tennis club and they do all these after school activities and again like the football club you see we said 'do you want to go to it?' and he'll say 'yeah' but when he got there he didn't like it.
P2: He goes to swimming lessons once a week of an evening. He does fine but when everyone else is in the pool listening to the lady he won't sit he's always looking at someone else.
P1: Yes doing something else.
P2: They're always turning him round to the lady
I: Hmm.
P2: he's doing something else.
I: Finds it quite hard to focus on?
P2: He can't focus all his attention.
P1: It's because something else just takes his mind away
I: Yeah yeah.
P1: and you can sit and talk to him and say Robbie, Robbie, Robbie, and he can't hear you it's not like he's ignoring you cause he's going to pretend I'm too busy playing my game, a bomb could go off and you know (3rd party interruption). A bomb could go off and he wouldn't even know.
I: Yes.
P1: And I think sometimes he gets, something else catches his attention and he's away.

I: Yes he’s got very concentrated thought.
P1: Yes. But when he does concentrate on something
P2: Yes his DS or the computer.
P1: Or a game or anything you know.
I: Yeah.
P1: If something interests something interests him
I: Hmm.
P1: he’ll concentrate.
I: And just moving onto the topic of bullying a little bit are you aware of the school’s bullying policy or would you know how to find it if you needed to?
P1: Yeah I think so.
I: And has Robbie had any problems with that in the past?
P1: I don't think so.
P2: I think with the age of the children now it’s not such an issue.
I: Hmm.
P2: Maybe as they get older it could be an issue.
I: Hmm.
P1: It’s something that worries me when he’s older
I: Yes.
P1: cause I know people will look at him, cause I mean my sister’s got two children a ten and an eight year old and they're in juniors now and there's many a time I've walked them to school or taken them across the playground and I've just noticed in school as the children get older
I: Yes.
P1: they do ...
P2: And Robbie especially can’t be teased can he? Can’t be teased.
P1: No.
I: Does he react very badly?
P2: He doesn’t understand if someone’s playing a joke or not.
I: Hmm.
P1: I wouldn’t say he reacts really badly but he doesn’t get it.
P2: No.
I: Right, hmm.
P1: And words are very literal with Robbie
I: Hmm.
P1: I said to him the other day ‘I’m going to change your bed Robbie’ and he said ‘I don't want you to change it I like my bed’ and I went ‘no no I mean I’m going to change the sheets on it’
I: Yes.
P1: and he was looking ‘what you going to change my bed for?’ so I think when somebody sort of takes the micky and says ‘ha Robbie you've got a fat bum’ he would say ‘oh no I haven’t what are you saying that for?’
I: Yes.
P1: I think at the minute boys of that age they all muck about and they all have a play about but it’s all very innocent
I: Hmm.
P1: and nobody laughs at him or teases him yet because I think the children are too young to sort of understand anyway
I: Yes.

P1: but I think maybe in sort of three or four years' time, I mean I don't think Robbie would change I think Robbie will always have that sort of idea of things in his head but I think as the children grow up he might get, not bullied, but I think he might get the micky taken out behind his back a bit.
P2: If anyone does this one will look after him won't you? (3rd party interruption)
I: I think in terms of extra-curricular activities you're you've already mentioned most of those actually so he is already quite involved in various bits and pieces.
P1: Yes. I think he'd be, like I said, I think if we knew he'd do it and he'd enjoy it we probably would go to him more
I: Right.
P1: and after school and they have some of these clubs and things.
P2: Things like I have a work colleague who's brother is similar to Robbie and he's found something like karate something like that is absolutely fantastic for him, brought him out of his shell something to focus on like that you know.
I: Yes.
P2: Something like that.
P1: I think it's the case of just trying with Robbie.
P2: Trial and error. If we find something he likes.
P1: But I know like I say there's a lot of the school activities you know we'll mention to him and he'll not want to do it.
I: Not want to do it, what do you think he will be interested in, you mentioned the karate or something like that?
P2: Not sure really.
P1: I mean he likes football doesn't he he likes kicking a ball about and with him being quite competitive Robbie I think he'd be good at something sort of I don't know.
P2: He's very physical.
P1: Yeah running type ...
P2: He's always been (3rd party interruption) ...
P1: Balancing he's very good at and climbing
I: Yes.
P1: and all that sort of stuff and PE they say he's very good at climbing and rolling and balancing and he does like to kick a football about but again I think that's a boy thing
I: Yes.
P1: and he does enjoy his swimming but I think physical sports probably be quite good for him 'cause he does seem to have, he does always seem to have a lot of energy Robbie and he likes to dash about and do something.
I: Hmm.
P2: Likes being outside.
P1: Yeah I would have thought games, any games that sort of concentration and sort of skill like snooker and golf I don't think he'd have the patience to, I think it would be more ...
P2: You never know. He's only six.
I: Yeah time will tell won't it yeah. (3rd party interruption) This could be fun transcribing this! (Laughs) So moving on to you then in terms of parental engagement and confidence how does the school engage with you as parents?
P2: Not so much with me 'cause I'm not usually the one who takes him to school and fetches him all the time its usually with you isn't it?

P1: Yeah and a lot of the meetings within school are like you know a Tuesday morning or and I you know if I wanted the (LA SEN Centre) place was like that and the first couple of meetings at school with Robbie you came to didn't you?
P2: Hmm.
P1: A lot of these meetings now I go to and just relay to you really. I think if they ever wanted you there they would say 'could you make sure your husband's there' I think they know us well enough to um but I mean like I say there's you know we have these meetings, every morning when we go in his teacher is there, his teaching support is there, in a junior an infant school the Head's wandering round as well
I: Hmm.
P1: and they they always keep us up to date with what he's been doing
I: Hmm. Aha.
P1: and they take a lot, they've got a little book that they've been doing for him which is sort of like Robbie's book and because I take him in the morning and say 'bye Robbie' and don't pick him up until either half past three or five o'clock at night and then if I say to Robbie 'how's school today alright?'
P2: He never ...
P1: he never talks about it 'what did you do today Robbie who did you play with?'
P2: Unless something he's done something that's really pleased someone at show and tell
I: Hmm.
P2: and then he'll come or if he's made something a picture.
P1: Yeah yeah but a lot of the time when you take him into class in the morning you'll see some of the kids there with their mums showing them things on the wall and things they've made and I'll say to Robbie 'ooh Robbie are you going to show me yours'? and he'll say 'no no' he'll not want to
I: Hmm.
P1: so they do like a book and they take some photos and pictures and stuff things that he's made and stuff and she was letting me look at that the other day cause she said you know 'I feel awful that you come in you drop him off and you go away you're not quite sure what he gets up to all day'
I: Yes.
P1: so they've done that which is lovely and when they had the parent's evening a couple of months ago they actually did a separate one for us sort of during the day cause you only get ten minutes don't you?
I: Yes.
P1: And she sort of said 'I'm going to want longer with you'
I: Right.
P1: so they did their own separate thing but no the school have been really good.
I: Right so you're pleased with the level of engagement you have with them, they have got that right?
P1: Yes yes.
I: And the structured conversations I mentioned before cause this is something that's really so new, have you done two structured conversations at school his teacher?
P1: Um ...
I: Where they've brought you in and actually done an hour ...?
P1: Well at least two I think.
I: Yes. I mean it may have been more I think they've certainly done at least two there.
P1: Yeah oh yeah.

I: Thinking back to the first one and how did you find that went? Cause like you say it was longer than the traditional meeting with parents that might just be ten minutes or so?
P1: Done really well cause like you say they have the teacher there and we've got the Head there and the special needs coordinator there and his teaching support there
I: Yes.
P1: and you know we all just sit around and they tell us what they've been up to and what they can do
I: Yes.
P1: yeah I think they go really well and they sort of help you really cause you can feel like you're getting involved and you feel like the school's actually doing something as well.
I: Hmm.
P1: You know because say I take him in in the morning and I leave him there and you know it's nice for them to say 'we've been doing this this and this with him'
I: Yes.
P1: and they had the speech therapist that comes in and the woman there's a lady that comes in you know just to watch him and they always let me know when that's happening and the dates.
I: Hmm. And do you go in on that day?
P1: No.
I: Just get feedback.
P1: 'Cause its within school really and they say in the letter you don't have to attend
I: Hmm.
P1: because I think if I did go in and I was stood at the back of the class like this he'd think what's going on, so they let me know they keep me up to date with everything that's going on
I: Yes.
P1: no they're they've been great.
I: And have you had any sort of one to one meetings with Robbie's class teacher?
P1: Yes I've seen his class teacher a couple of times
I: Hmm.
P1: as well for sort of like you know parent's evenings things as well that we always do in the day time and she always sort of brings out all his stuff that shows us what they're doing.
I: And have you always felt listened to in those meetings cause one of the big things in this project is to very much listen to the parent's voice which is sometimes been missing in the past?
P1: Yeah.
P2: I've been well impressed with how much effort the school...
P1: Yes they have put in like I say even from the beginning we didn't have any idea really that anything really was wrong, like I say everybody thought he was a bit quiet and a bit introvert but I suppose you never you don't think of these things and when they first actually said to you 'we think he might ... we'd like to talk to you about Robbie'
I: Hmm.
P1: even from the start he was in reception and they were just being really supportive all the way.
I: Yes.
P2: It never occurred to us really 'cause he was just Robbie.

I: Yes.
P2: you know...
P1: And looking back now you sort of think oh yeah I suppose and oh yeah you could see but from a parent's point of view to me it was almost like being told there's something wrong with your child and there's a lot of ways you could go about that
I: Yeah.
P1: and his teacher at the time Mrs Norman and Miss Price who were sort of his reception teachers went about it in a very good way really
I: Yes.
P1: because I think they knew that we didn't have any idea at all so she they had to tread carefully really
I: Yes.
P1: 'cause they don't want to say 'we want to talk to you about your child cause there's something wrong with him.'
I: Yes.
P1: but the way they sort of approached it and the way they said 'even if, we just want to do this to rule anything out'
I: Hmm.
P1: when we did go to (LA SEN Centre) and we sat down and you know we found out that you know he was sort of autistic, like I say looking back now you can see little traits in him, because you it something that you don't know about because even things like in the telly or the paper there's not a lot of it about.
I: No.
P1: and it's one of those ...
P2: There seems to be more now.
P1: There seems to be more now yeah but I wonder if that's because we've got an autistic child and we look at it 'oh there's a programme on ...'
P2: There's a lot more.
P1: yeah I's all mental health week at the minute or mental health month.
P2: Louis Theroux did the thing in America.
P1: Oh yes
I: There's certainly been a couple of things on recently haven't there?
P1: But when they told us that you know he was autistic and so we went back to the school they were very good in right this is what we do now, this is what we'll be doing for him, we'll do this and do that and we can, you know, we can put things into place that you know will help Robbie and it made me feel a lot more relaxed and sort of more confident.
I: Hmm.
P2: I wasn't so keen on (LA SEN Centre) and some of the people there.
I: Hmm. Did you see quite a whole battery of people?
P1: Not really we saw the same two.
I: Aha.
P2: The child psychologist and there was a doctor who just seemed to be very keen to put him on drugs
I: Right.
P2: he's only five years old I'm not going to put drugs in my son who's five years of age you know, I won't you know, give him a chance.
P1: I think you felt a little bit at (LA SEN Centre) that he was just another autistic child really.
I: Aha.

P1: And he is like I say they probably have a million through the door every day that are autistic or special needs
I: Hmm.
P1: but it was almost like yeah oh well this is wrong with him that is wrong with him and you've got drugs you can give him or whatever, and it was almost like see you in six months whereas with the school they've been really positive about it and that's
I: Hmm.
P1: I come out of (LA SEN Centre) feeling a bit deflated really but I come out of school feeling really you know positive about it all and they are and I know if I do feel a bit uncomfortable with Robbie maybe I feel he's not doing this or I want I know that I could go to his teacher or his support or even the Head tomorrow and say 'Samantha I want to do this can I talk to you about that?' and they'd be open to it.
I: Yeah that's good.
P2: I think maybe when he gets older he'll understand more himself about his condition if he wants to go down the road of taking something that might help
I: Hmm.
P2: him change, you know what I'm talking about when he's sixteen or seventeen
I: Hmm.
P2: you know (laughs) and you might say you know you might think about it but not when he's five six years of age.
I: Hmm. But you feel the school's supported you very well from what you're saying?
P1: Hmm.
P2: Oh yeah.
I: That's great and in terms of when you go into school and meet with his teachers do they do they set targets for him in terms of what they'd like him to achieve how they'd like him to progress?
P1: Oh yeah I mean they do the SEAL within school
I: Oh yes I know about that hmm.
P1: but they do with Robbie he has his he has SEAL to do but they also when I have these meetings at school they do have like they're little a bit like SEAL three little targets like 'I can share when playing a game'
I: Yes.
P1: you know 'I can take turns'
I: Hmm.
P1: um 'I can write my name in' you know 'big letters and little letters', you know capital and lower case letters
I: Hmm.
P1: 'I can sit quietly during carpet time'
I: Yes.
P1: and he does those three little things that are just his
I: Hmm.
P1: and when we have the next meeting she'll say 'he's great with that now so maybe next time we could encourage him to sit through a whole assembly that will be his next task'
I: Hmm.
P1: 'cause he has his little chair at the back and a few minutes before they take him out cause they all clap and sing at the end and he doesn't like it.
I: Yes.
P1: Just things like that and they do set their own little targets
I: Yes.

P1: for Robbie really but you know the school are with him longer than I am really, we have him weekends and my days off and stuff but I never see him within school
I: Hmm.
P1: and how he behaves and how he reacts and how he learns in school. Like any parent you're not there are you so ...
I: No.
P2: He's been in and comes to nativity plays but he just won't get involved.
P1: No no.
P2: He sits at the back. I think he had a tambourine once but ...
P1: That was it really.
P2: That's about it, he sat with a helper then didn't he?
P1: Yeah but whereas a lot of the kids will come home from school even at six you know they'll talk to their mum and dad or they'll talk about what they've been doing at school and stuff like that
I: Hmm.
P1: but Robbie is very reluctant to do that. Like I say it's 'how's school?' 'okay' 'and how was your lunch break who did you sit with?'
I: Hmm.
P4: He's talking to the neighbours now.
P1: Is he? Um so to actually have the school sort of say 'oh he was brilliant yesterday we did that with him and this with him' and everyone within school knows him as well, all the teachers within school even the caretaker they all know him
I: Hmm.
P1: which is quite a nice thing really
I: It is.
P1: because it's nice to think that they all, they all know him, and he knows them all as well. He might come out and say 'hello Mr Barton (Caretaker)' and he'll say 'hello Robbie' and it's just nice to think that everyone sort of knows him and has something to do with him really.
I: Yes.
P1: Its nice I'll be sad next year when he actually just goes from the junior into the juniors cause I think the infants have really they've looked after him.
P2: He's looking forward to going to the ... I think he likes getting older, he says 'I can't wait to be seven'
I: Ah (laughs) yeah yeah. And in terms of academic progress how does the school keep you in touch with Robbie's progress?
P1: Well they show me his book bag that he's done and again obviously the parent evenings they tell me what he's done, what he's been up to and they do have like they've got the little zapper that they do now
I: Oh yes I've heard.
P1: you fill the words in and when they're done you send them into school and they zap it
I: Hmm.
P1: he's got his reading book and he's got a book in with his reading book that the teachers will write a comment, like 'yes he understood this word' or 'he liked ...'
I: Yes.
P1: 'this story but he didn't understand that'
I: Hmm.
P1: and I mean you don't get school reports like you used to when we were kids like every six months because I think they're so young still um they don't actually have a

school report as such but you know a lot of the feedback we get just from the parent's evenings and things
I: Hmm.
P1: you know they do have sort of targets that they have to, that they have at school that you'd expect him to be on this level
I: Hmm.
P1: now for his age and I think that they compensate with Robbie and his autism
P2: He's good with his numbers isn't he, quite good with his numbers.
P1: yeah. But again you know they keep us informed of how he's doing and what they're doing to sort of try and keep him along, keeping him up to what he should be doing really.
I: Yes. Yes and you find that information useful do you?
P1: Yes.
I: Supporting Robbie and stuff like that.
P1: Yes.
I: Right I think that's about all the questions I've got to ask you, that's super thank you very much.
P1: I think again if it was normal child um I think the school realise that because he is, not different that's ..., but because he has certain needs
I: Hmm.
P1: um that they know that we need to ...
P2: But he's definitely not severely autistic is he?
P1: No.
P2: Very very slightly on the scale.
I: It's very much a spectrum isn't it, yes yes.
P1: But they keep me they keep us informed probably more than they do with the normal children there because they know that
I: Yes.
P1: you know that we probably need that bit more information cause, you know, but no they do really really well. I can't fault them in anything they've been fab haven't they? The infants.
I: And he'll go across to the juniors in a couple of years' time?
P1: Oh yeah and again I'm sure ...
P2: I don't know what kind of support ...
P1: I don't know what will happen ...
P2: what's available there don't even know what's going to happen.
P1: Cause it's a different school a different head a different everything.
I: Yes.
P1: But as far as sort of you know I think as a school they've given him the best sort of start and support, well him and us really, that they can yeah. I think can't fault them really.
I: Super, right thanks very much.

Appendix 3: Information sent to schools for AfA evaluation

3a: Letter of invitation to schools to participate

Achievement for All National Evaluation

28th October 2009

Dear colleague,

I am writing to invite your school to participate in the national evaluation of Achievement for All (AFA). This research project is being led by the University of Manchester and funded by the Department for Children, Schools and Families. It began in September 2009 and will conclude in August 2011. You may remember our brief presentation about the project at the recent NCSL launch event.

Our records show that your school is receiving funding to implement AFA. The LA Project lead for AFA has endorsed this research project and is keen for all AFA schools to participate. In this letter we describe what participation in the project will entail and the benefits of your school becoming involved. This will enable you to make a fully informed decision regarding participation.

What is the aim of the research?

Our main aim is to examine the impact of AFA on a variety of outcomes (e.g. academic attainment, behaviour, positive relationships, parental engagement and confidence) for children and young people with special educational needs and disabilities (SEND). We also aim to find out what processes and practices in schools are most effective in improving these outcomes.

What will participation entail for my school?

We will be conducting surveys focusing upon outcomes related to Strands 2 and 3 of AFA[26]. The surveys will be completed three times – in January 2010, November 2010 and June 2011. We will be asking the designated AFA key teachers and parents of pupils with SEND to complete the surveys online on a secure, password-protected website. The key teacher surveys will take approximately 5 minutes per pupil and will focus upon behaviour, positive relationships and bullying. The parental surveys will take approximately 10 minutes per pupil and will focus upon behaviour, positive relationships, bullying, extended services participation and parental engagement and

[26] Outcome data relating to Strand 1 of AFA – pupil's academic attainment scores – will be collected by the National Strategies. They will contact you independently to discuss this matter.

confidence. In line with the AFA guidance, our target sample are all pupils with SEND in Years 1, 5, 7 and 10.

If you agree to your school's participation in the study, you will be sent further details covering the practicalities of notifying parents and completing the surveys in the near future. Briefly, survey access will be facilitated by a unique school password that will be sent prior to each wave of data collection. The password will allow each designated AFA key teacher to log into the website and view a list of pupils with SEND in the target year groups in your school (this is made possible because we have agreement from DCSF to use the National Pupil Database to populate our survey). They will then be able to quickly and easily complete a survey on each of their designated pupils before logging off.

In relation to parents, we will provide information sheets and opt-out consent forms prior the first wave of data collection. Parents will also receive a unique school password to allow them to access the survey site. However, in the interests of privacy and data protection they will not be able to view a list of pupils with SEND in the target year groups in your school. Instead, they will be asked to provide some key pieces of information (e.g. their child's gender, year group, and date of birth) that will allow us to later match their survey responses to background information about their child.

In addition to the above outcomes surveys, we will also be conducting two surveys focusing on AFA implementation – one in March 2010 and one in March 2011. This survey needs to be completed by the AFA project lead in your school, and will take around 30 minutes to complete. It will focus upon activity in each of the three strands of AFA (assessment, tracking and intervention; structured conversations with parents; provision for developing wider outcomes), in addition to broader issues such as the climate of the school (e.g. relationships between pupils and staff).

Alongside our survey research, we will also be conducting case studies of a small number of schools (2 per Local Authority). We are currently working with the AFA Project Lead in each Local Authority to identify potential case study schools, and will contact you separately should your school be nominated for this strand of the research.

What happens to the data collected?
The data will be analysed by our research team at the University of Manchester. We will write a report based on our analyses for the Department for Children, Schools and Families. It is also likely that we will write articles for academic journals based on the project findings. Finally, it is possible that we will write a book about the research.

How is confidentiality maintained?
All data provided will be treated as confidential and will be completely anonymous. Identifying information (e.g. pupils' names) will only be used in order to match responses about the same individual from different respondents (e.g. parents and teachers) and across different times (e.g. January 2010, November 2010, June 2011). After this matching process is complete all identifying information will be destroyed.

The website that houses the survey will be completely secure and password protected. All survey data will be stored on a secure, password protected drive to which only senior members of the research team have access.

Criminal Records Check
Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

What are the benefits of participation?
There are many good reasons to get involved in this evaluation. These include:

- **Minimal data collection burden** – each survey is designed to be as brief and user friendly as possible, with a window of 1 month for completion of surveys at each wave of data collection
- Your school will receive **bespoke, aggregated feedback** following each wave of data collection, comparing your findings to the average within your LA and the national sample as a whole; this feedback should be very useful to help in your future planning and can be used in your school's Self Evaluation Form.
- Data will be available on outcomes pertaining to all three strands of AFA – allowing you to **judge its impact in your school**.
- We will make every effort to **include your 'hard to reach' parents** - including translated information sheets and surveys for parents whose first language is not English, paper versions for parents without access to the internet, and telephone surveys for parents with literacy difficulties
- The opportunity to take part in what we think will be the **largest study of its kind** ever conducted in England
- All data will be treated in the **strictest confidence and will be completely anonymised** prior to analysis and reporting.

What happens next?
We would like you to think about your school's participation in this project and perhaps discuss it with colleagues. One of our research team will contact you by telephone or email within the next couple of weeks to follow up this invitation. If you decide to participate, we will give you information about the next steps.

Alternatively, you can contact Mrs Judith Hebron by telephone on 0161-275-3522 or by email at judith.hebron@manchester.ac.uk to let us know about your decision.

Many thanks for taking the time to read this invitation. We sincerely hope your school will participate in the research and wish you the best of luck in implementing Achievement for All.

3b: Information and consent for teachers

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION

INFORMATION SHEET FOR AfA KEY TEACHERS

Your school is involved in the national evaluation of Achievement for All (AfA). This research project is being led by the University of Manchester and funded by the Department for Children, Schools and Families.

We are writing to you because your school's AfA co-ordinator has indicated that you are the designated key teacher for one or more pupils with special educational needs and disabilities (SEND). We would like to collect your views about the behaviour, positive relationships and bullying of each of the pupils with SEND for whom you are the key teacher. We will do this via a 5 minute survey in January 2010, November 2010 and June 2011 (see below).

Please take time to read the following information carefully and decide whether or not you would like to take part.

If you would like any more information or have any questions about the research project, please telephone Mrs Judith Hebron on 0161 275 3522 or email her at judith.hebron@manchester.ac.uk.

Who will conduct the research?

The research will be conducted by Dr. Neil Humphrey and other staff in the School of Education, University of Manchester, Oxford Road, Manchester M13 9PL.

Title of the research

Achievement for All – National Evaluation

What is the aim of the research?

Our main aim is to find out what impact Achievement for All has on outcomes for children and young people with SEND. We also aim to find out what processes and practices in schools are most effective in improving these outcomes.

Where will the research be conducted?

450 schools across 10 Local Authorities in England are involved.

What is the duration of the research?

The project itself runs from September 2009 until August 2011.

Why have I been chosen?

We are writing to you because your school's AfA co-ordinator has indicated that you are the designated key teacher for one or more pupils with special educational needs and disabilities (SEND).

What would I be asked to if I took part?

You will be asked to complete a brief online survey about each pupil with SEND for whom you are the key teacher, covering:

- behaviour,
- positive relationships, and
- bullying

This survey will be completed three times – in January 2010, November 2010 and June 2011. It will take approximately 5 minutes to complete per pupil.

What happens to the data collected?

The data will be analysed by our research team at the University of Manchester. We will write a report based on our analyses for the Department for Children, Schools and Families. It is also likely that we will write articles for academic journals based on the project findings. Finally, it is possible that we will write a book about the research. In all publications and reports data will be presented anonymously.

How is confidentiality maintained?

All data provided will be treated as confidential and will be completely anonymous. Identifying information (e.g. pupils' names) will only be used in order to match responses about the same individual from different respondents (e.g. parents and teachers) and across different times (e.g. January 2010, November 2010, June 2011). After this matching process is complete all identifying information will be destroyed.

The website that houses the survey will be completely secure and password protected. All survey data will be stored on a secure, password protected drive to which only senior members of the research team have access.

Criminal Records Check

Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

What happens if I do not want to take part or I change my mind?

It is up to you if you want to take part. If you decide to take part you do not need to do anything – you will be sent further details about when and how to complete the survey in the near future.

If you decide not to take part then you need to either complete the opt-out consent form enclosed and return it to our research team at the address above or contact Mrs Judith Hebron by telephone or email (details above) by (date).

If you decide to take part and then change your mind, you are free to withdraw at any time without needing to give a reason.

Will I be paid for participating in the research?

We are not able to offer any payment or incentive for participating in this study.

Criminal Records Check

Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

Contact for further information

Judith Hebron
Educational Support and Inclusion
School of Education
University of Manchester
Oxford Road
Manchester
M13 9PL
Tel: 0161 275 3522
Email: judith.hebron@manchester.ac.uk

What if something goes wrong?

If completing the survey makes you worry about any of your pupils' wellbeing then you should speak to your school's AfA co-ordinator in the first instance.

If you ever wish to make a formal complaint about the conduct of the research you should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester M13 9PL.

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION

TEACHER CONSENT FORM

An information sheet is attached to this form. Please read it carefully before making a decision about taking part in the study.

If you are willing to take part then you do not need to do anything at the moment. You will be sent further details about when and how to complete the survey in the near future.

If you decide not to take part, then you need to complete the opt-out consent form below and return it to Mrs Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Oxford road, Manchester, M13 9PL. Alternatively, Judith can be contacted by telephone on 0161 275 3522 or email at judith.hebron@manchester.ac.uk. If you do not wish to participate please let us know by (date).

Finally, please also remember that if you do decide to take part, you are free to change your mind at any point in the study.

☐----------

I **do not** wish to participate in the Achievement for All national evaluation. My details are as follows:

My name	
Name of my school	
Local Authority	
I am AfA key teacher for the following pupil(s):	1.
	2.
	3.
	4.
	5.
	6.

Signed: _____ Date: _____

Please return this form to Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Manchester M13 9PL by (date).

3c: Information and consent for parents

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION
INFORMATION SHEET FOR PARENTS

Your child's school is involved in an exciting project called Achievement for All. This project hopes to improve children's learning and experience of school. The government has asked us to evaluate how well this project works.

We are writing to you because your child is involved in the project and we would like to know what you think about it. We will collect your views in a 10 minute survey in February/March 2010, November 2010 and June 2011 (see below).

Please take time to read the following information carefully and decide whether or not you would like to take part.

If you would like any more information or have any questions about the research project, please telephone Judith Hebron on 0161-275-3522 or email her at judith.hebron@.manchester.ac.uk.

Who will conduct the research?
The research will be conducted by Dr. Neil Humphrey and other staff in the School of Education, University of Manchester, Oxford Road, Manchester M13 9PL.

Title of the research
Achievement for All – National Evaluation

What is the aim of the research?
Our main aim is to find out what impact Achievement for All has on outcomes for children and young people with SEND. We also aim to find out what processes and practices in schools are most effective in improving these outcomes.

Where will the research be conducted?
450 schools across 10 Local Authorities in England are involved.

What is the duration of the research?
The project itself runs from September 2009 until August 2011.

Why have I been chosen?
We are writing to you because your child's school is taking part in the AFA initiative, he/she is on the school's SEND register and also is in one of the AFA

target year groups (Years 1 and 5 in primary schools; Years 7 and 10 in secondary schools).

What would I be asked to if I took part?
You will be asked to complete a brief online survey about:

- your child's behaviour,
- positive relationships,
- bullying,
- participation in wider activities, and
- your engagement and confidence in the school.

This survey will be completed three times – in February/March 2010, November 2010 and June 2011. It will take approximately 10 minutes to complete. In consenting to take part you are also giving your permission for a key teacher at your child's school to complete a similar but briefer survey (that only covers behaviour, bullying and positive relationships) at the times noted above. There will be no direct contact between any of our research team and your child for this part of the research project.

The survey will be available in the following additional languages: Arabic, Bengal, Chinese traditional and simplified, French, Gujarati, Polish, Somali and Urdu. If you do not have access to the internet we will be happy to either provide a paper copy or complete it over the telephone with you at an agreed time.

If you would like to do this please contact Judith Hebron (details above) and she will arrange this for you. There is another part of the project which involves case studies that will involve direct contact – if your child's school becomes involved in this element you will receive a separate information sheet and consent form.

How is confidentiality maintained?
All data provided will be treated as confidential and will be completely anonymous. Identifying information (e.g. your child's name) will only be used in order to match responses about the same individual from different respondents (e.g. parents and teachers) and across different times (e.g. February/March 2010, November 2010, June 2011). After this matching process is complete all identifying information will be destroyed. The website that houses the survey will be completely secure and password protected. All survey data will be stored on a secure, password protected drive to which only senior members of the research team have access.

How is confidentiality maintained?
All data provided will be treated as confidential and will be completely anonymous. Identifying information (e.g. your child's name) will only be used in order to match responses about the same individual from different respondents (e.g. parents and teachers) and across different times (e.g. February/March 2010, November 2010, June 2011). After this matching process is complete all identifying information will be destroyed. The website that houses the survey will be completely secure and password protected. All survey data will be stored on a secure, password protected drive to which only senior members of the research team have access.

What happens if I do not want to take part or I change my mind?
It is up to you if you want to take part. If you decide to take part you do not need to do anything – you will be sent further details about when and how to complete the survey in the near future.

If you decide not to take part then you need to either complete the opt-out consent form enclosed and return it to our research team at the address above or contact Judith Hebron by telephone or email (details above) by 12th March 2010.

If you decide to take part and then change your mind, you are free to withdraw at any time without needing to give a reason. If you do this please rest assured that we will destroy any data generated in relation to your child as part of the study.

Will I be paid for participating in the research?
We are not able to offer any payment or incentive for participating in this study.

Criminal Records Check
Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

Contact for further information
Mrs Judith Hebron
School of Education
University of Manchester, Oxford Road
Manchester, M13 9PL
Tel: 0161 275 3522
Email: judith.hebron@.manchester.ac.uk

What if something goes wrong?
If completing the survey makes you worry about your child's wellbeing then you should contact his/her school in the first instance and ask to speak to the Achievement for All co-ordinator. If you ever wish to make a formal complaint about the conduct of the research you should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester M13 9PL.

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION

PARENTAL CONSENT FORM

An information sheet is attached to this form. Please read it carefully before making a decision about taking part in the study.

If you are willing to take part then you do not need to do anything at the moment. You will be sent further details about when and how to complete the survey in the near future. In consenting to take part, you are also giving your permission for a teacher at your child's school to complete a survey about your child.

If you decide not to take part, then you need to complete the opt-out consent form below and return it to Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Oxford road, Manchester, M13 9PL. Alternatively, Judith can be contacted by telephone on 0161 275 3522 or email at judith.hebron@.manchester.ac.uk. If you do not wish to participate please let us know by 12th March 2010.

Finally, please also remember that if you do decide to take part, you are free to change your mind at any point in the study. Just let us know and we will destroy any data generated in relation to your child.

☐----------

I **do not** wish to participate in the Achievement for All national evaluation. Furthermore, I do not give consent for a key teacher at my child's school to complete a survey about him/her in relation to this study.

Name of child	
Sex of child	
Year group	
Name of school	
Local Authority (if known)	

Signed: _____(parent/guardian) Date: _____
Please return this form to Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Manchester M13 9PL by 12th March 2010.

Appendix 4: Information sent to schools and parents for the AfA case study

4a: Invitation to school to participate in Case Study

Achievement for All National Evaluation

08 December 2009

Dear colleague,

Thank you for agreeing for your school to participate in the AFA National Evaluation. Alongside our survey research, we will also be conducting case studies of a small number of schools (2 per Local Authority). The LA Project lead for AFA in [redacted], has suggested your school as suitable case study school and I am writing to invite you to become involved. In this letter we describe what participation as a case study school will entail and the benefits for your school. This will enable you to make a fully informed decision regarding participation.

What is the aim of the case study research?

Our main aim is to find out which processes and practices in schools are most effective in improving outcomes for pupils with SEND, and also the contextual and pupil factors influencing their relative success.

What will cast study participation entail for my school?

One of our researchers will need to visit your school for a total of 5 days between November 2009 and July 2011. We plan to visit case study schools once per term during this period.

During the course of the visits, we will need to speak to key people involved in the implementation of the AfA. This is likely to include the Head Teacher, AFA co-ordinator, SENCO, and some of the classroom teachers and learning support assistants working with children with SEND. In addition, we will collect information from a number of parents and children (although this will not take place on the initial visit). We realise that schools are busy places and therefore every effort will be made to minimise disruption to the school day. Information will be collected using a variety of methods, such as interviews, focus groups, observations, and analysis of school documentation.

What happens to the data collected?

Case study school information will be analysed by our research team at the University of Manchester. All meetings and interviews will be recorded and

then transcribed in order to permit detailed analysis. We will write a report based on our analyses for the Department for Children, Schools and Families. It is also likely that we will write articles for academic journals based on the project findings. Finally, it is possible that we will write a book about the research.

How is confidentiality maintained?

All data provided will be treated as confidential and will be completely anonymous. Once information has been transcribed in preparation for analysis, all identifying information will be destroyed. All data will be stored on a secure, password protected drive to which only senior members of the research team have access.

Criminal Records Check

Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

What are the benefits of participation?

There are many good reasons to become a case study school. These include:

- The opportunity to take part in what we think will be the **largest study of its kind** ever conducted in England.
- The opportunity to provide direct feedback on your experience of implementing AfA, which will **contribute to the development of government policy in the area of SEND**.
- Your school will receive **bespoke feedback** following data collection. This feedback should be very useful in future planning.
- All data will be treated in the **strictest confidence and will be completely anonymised** prior to analysis and reporting.

What happens next?

We would like you to take some time to think about your school's participation in this project and perhaps discuss it with colleagues. One of our research team will contact you by telephone and/or email within the next couple of weeks to follow up this invitation. If you decide to participate, we will give you information about the next steps involved.

Alternatively, you can contact Mrs Judith Hebron by telephone on 0161 275 3522 or by email at judith.hebron@manchester.ac.uk to let us know about your decision.

Many thanks for taking the time to read this invitation. We hope that the process of being involved will help you reflect on how you work with children and young people who have SEND. We sincerely hope your school will participate in the research and wish you the best of luck in implementing Achievement for All.

Yours sincerely

On behalf of the Achievement for All National Evaluation team

4b: Information and consent for parents to participate in case study

Achievement for All National Evaluation

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION (CASE STUDY STRAND)

22 November 2010

Dear parent,

We are writing to you as your child's school is involved as a case study school in an exciting project called Achievement for All (AFA). This project hopes to improve the learning and experience of school for children with special educational needs and disabilities (SEND). The government has asked us to evaluate how well this project works.

As part of the case study, we would like to speak to you and your child. Please take time to read the following information carefully and decide whether or not you would like to take part.

If you would like any more information or have any questions about the research project, please telephone Judith Hebron on 0161 275 3522 or email her: Judith.Hebron@manchester.ac.uk.

Who will conduct the research?

The research will be conducted by Dr. Neil Humphrey and other staff in the School of Education, University of Manchester, Oxford Road, Manchester M13 9PL.

Title of the research

Achievement for All – National Evaluation

What is the aim of the research?

Our main aim is to find out what impact AFA has on outcomes for children and young people with SEND. We also aim to find out which processes and practices in schools are most useful in improving these outcomes.

Where will the research be conducted?

450 schools across 10 Local Authorities in England are involved. For the case study, two schools from each Local Authority have been chosen.

What is the duration of the research?

The project itself runs from September 2009 until August 2011.

Why have I been chosen?

We are writing to you because your child's school is taking part in the AFA initiative, he/she is on the school's SEND register and also is in one of the AFA target year groups (Years 1 and 5 in primary schools; Years 7 and 10 in secondary schools).

What would I be asked to if I took part?

A member of the research team will interview you and your child (separately) on two or three occasions between November 2009 and July 2011. The interviews will each take no more than 30 minutes. You will be asked to talk about a number of areas relating to your child and his / her school. The areas are likely to include:

- your child's behaviour,
- positive relationships,
- bullying,
- participation in wider activities,
- your engagement and confidence in the school,
- improvements made in these areas during the project

Similar topics will be covered when interviewing your child.

In consenting to take part you are also giving your permission for your child to be interviewed.

What happens to the data collected?

The interviews will be recorded and then written up so that they can be analysed by our research team at the University of Manchester. We will write a report based on our analyses for the Department for Children, Schools and Families. It is also likely that we will write articles for academic journals based on what we find out in the project. Finally, it is possible that we will write a book about the research. Your name or your child's name will never be used in these reports.

How is confidentiality maintained?

All data provided will be treated as confidential and will be completely anonymous. Identifying information (e.g. your name or your child's name) will not be used.

What happens if I do not want to take part or I change my mind?

It is up to you if you want to take part.

If you decide to take part you do not need to do anything – you will be sent further details about times and dates of the interviews in further course. Your child's school may contact you in order to request contact details so that our research team can get in touch with you directly.

If you decide to take part and then change your mind, you are free to withdraw at any time without needing to give a reason. If you do this please rest assured that we will destroy any data generated in relation to your child as part of the study.

Will I be paid for participating in the research?

We are not able to offer any payment or incentive for participating in this study.

Criminal Records Check

Every member of our research team has undergone a Criminal Records Bureau check at the Enhanced Disclosure level.

Contact for further information

Judith Hebron
Educational Support and Inclusion
School of Education
University of Manchester
Oxford Road
Manchester
M13 9PL

What if something goes wrong?

If participation in this research project makes you worry about your child's wellbeing then you should contact his/her school in the first instance and ask to speak to the Achievement for All co-ordinator.

If you ever wish to make a formal complaint about the conduct of the research you should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester M13 9PL.

Achievement for All National Evaluation

ACHIEVEMENT FOR ALL – NATIONAL EVALUATION (CASE STUDY STRAND)

PARENT AND CHILD CONSENT FORM

An information sheet is attached to this form. Please read it carefully before making a decision about taking part in the case study.

If you are willing to take part then you do not need to do anything at the moment. You will be sent further details about interviews in the near future.

If you decide to take part, then you need to complete the consent form below and return it to Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Oxford road, Manchester, M13 9PL. Alternatively, Judith can be contacted by telephone on 0161 2753522 or email at judith.hebron@.manchester.ac.uk.

Finally, please also remember that if you do decide to take part, you are free to change your mind at any point in the study.

☐----------

I wish to participate in the case study strand of the Achievement for All national evaluation. My details are as follows:

My name	
My child's name	
Name of my child's school	

Signed: _____ Date: _____

Please return this form to Judith Hebron, Educational Support and Inclusion, School of Education, University of Manchester, Manchester M13 9PL

Appendix 5: Braun and Clarke (2006) 15-point checklist

Process	No.	Criteria
Transcription	1	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2	Each data item has been given equal attention in the coding process.
	3	Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive.
	4	All relevant extracts for all each theme have been collated.
	5	Themes have been checked against each other and back to the original data set.
	6	Themes are internally coherent, consistent, and distinctive.
Analysis	7	Data have been analysed - interpreted, made sense of - rather than just paraphrased or described.
	8	Analysis and data match each other - the extracts illustrate the analytic claims.
	9	Analysis tells a convincing and well-organized story about the data and topic.
	10	A good balance between analytic narrative and illustrative extracts is provided.
Overall	11	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12	The assumptions about, and specific approach to, thematic analysis are clearly explicated.
	13	There is a good fit between what you claim you do and what you show you have done – i.e. described method and reported analysis are consistent.
	14	The language and concepts used in the report are consistent with the epistemological position of the analysis.
	15	The researcher is positioned as active in the research process; themes do not just 'emerge'.

Appendix 6: Missing data analysis

Missing data analysis – RQ1

Before analysing the datasets for prevalence and role a missing data analysis (MDA) was carried out on the bullying responses to assess whether there were any patterns that could affect the overall validity of the results for this RQ. The MDA datasets were based on pupils for whom a survey had been attempted (by the teacher and/or parent)[27]. Missing bullying responses (in the bullying scale, role and frequency questions) were assessed against a number of criteria that were selected from the available variables and which might indicate patterns of non-response. There are:

- Gender
- Year group
- Type of school
- SEND area of need
- Position on SEND register
- FSM-eligibility
- Ethnicity

TEACHER DATASET

From the optimum possible sample of 26,636 surveys, there were 17,042 that were considered valid according to the preceding criteria of having had a survey submitted (either electronically or on paper, with at least one response completed). Missing values in the bullying section of the teacher survey are shown in the table below:

		Missing	
	N	**Count**	**Percent**
Bullying mean	15894	1148	6.7
Bully frequency	16819	223	1.3
Bully role	16559	483	2.8

Table showing the number and percentage of missing data in the teacher surveys for bullying responses

[27] If no survey had been attempted by a teacher (in the teacher dataset) or a parent (in the parent dataset), then the case was omitted, as no useful information could be inferred for the analysis of missing bullying items.

This demonstrates that *bullying mean* was the only variable to exceed the generally agreed tolerance of 5% for missing data. A closer examination of the univariate analysis revealed that this response was more likely[28] to have been omitted if the pupil was:

- female
- in Years 7 or 10
- not involved in bullying
- identified as being in the sensory and/or physical area of SEND need

Tabulated pattern analysis revealed that *bullying mean* was the only response with a missing pattern of < 5% (5.6%).

Thus, while this finding suggests that missing *bullying mean* responses are not MCAR/MAR, given that the tolerances have only been exceeded by a small margin, it is unlikely that this pattern of missing responses is a cause for serious concern. Nevertheless, this slight violation should be noted. Little's MCAR test was not possible, as there was only one continuous variable in the MDA.

PARENT DATASET

The parent dataset followed the same analysis as the teacher one. From an optimum possible sample of 26,636 surveys, 3,074 were considered valid for the MDA according to the preceding criteria. Missing values in the bullying section of the parent survey are shown in the table below:

	N	**Missing**	
		Count	**Percent**
Bullying mean	2670	404	13.1
Bully frequency	2903	171	5.6
Bully role	2787	287	9.3

Table showing the number and percentage of missing data in the parent surveys for bullying responses

Thus, in the parent dataset, all of the responses to the questions in the bullying section exceeded the tolerance of 5% for missing data. Examination of the univariate statistics show that responses in this section were more likely (as in the case of the teacher responses) to be omitted in the cases shown in the table below:

[28] More likely means that the number of missing responses is above average.

	Bullying mean	Bully frequency	Bully role
Female		✓	✓
School year	1, 7, 10	7, 10	7, 10
Special school	✓	✓	✓
Black	✓	✓	✓
Has FSM		✓	✓
SSEN	✓	✓	✓
SEND area of need	Sensory and/or physical, ASD	BESD	BESD, Sensory and/or physical

Table showing the increased likelihood of certain missing responses

. As in the case of the teacher MDA, Little's (1988) MCAR test cannot be run, as there was only one continuous variable. Nevertheless, tabulated pattern analysis revealed that b*ullying mean* was the only response with a missing pattern > 5% (8%). Therefore, while some tolerances have been exceeded in the Bullying section, these appear minor violations that are unlikely to have a significant impact on the overall analyses.

Missing data analysis – RQ2 - teacher

In order to assess the dataset for any patterns in missing data, the optimum sample of 761 teacher surveys was analysed. This included all submitted teacher surveys for children identified by teachers as having ASD, even if data were missing within the survey itself. The DV (*bullying mean* score) was assessed alongside the 15 predictor variables and also the scores for frequency of bullying and the role a child plays in bullying situations. This analysis was to assess whether there were any discernible patterns of missing data when teachers completed the survey. An initial univariate analysis revealed that there were only two variables in which > 5% of the data were missing: attendance (16.7%) and combined academic scores (12%). Further investigation of these two variables showed that, in the majority of cases, attendance and academic data were missing by school and/or cohort, indicating that they were not missing at random, but were linked to a school's failure to return the data for all children involved in *AfA* (which is independent of the teachers' responses in the surveys). Therefore the decision was taken to omit these variables from consideration in the missing data analysis, as what is of interest is whether there is a pattern to the missing data supplied by the teachers (for example, are primary school teachers less likely to complete the section on behaviour?)[29]. Missing values for the teacher survey are shown in the table below:

	N	Missing	
		Count	**Percentage**
Bullying mean	725	36	4.7
Behaviour mean	730	31	4.1
Positive relationships mean	741	20	2.6
Bully frequency	753	8	1.1
Bully role	743	18	2.4

Table showing the number and percentage of missing data in the teacher surveys

In relation to the completion of the three scales on bullying, behaviour and positive relationships (with attendance and academic scores removed), Little's (1988) test indicated that missing values were equally distributed and therefore MCAR (χ^2 = 12.838, *DF* = 9, *p* = .170). This was also found to be the case when individual scale

[29] Some data (e.g. academic data, attendance data, gender, FSM eligibility) were obtained from the NPD and are therefore independent of responses given by teachers in the surveys. Thus, it is reasonable to assume these types of missing data are not affected by a teacher's response in the survey, and should not be taken into consideration for the purpose of missing data analysis.

items were assessed for missing patterns (χ^2 = 1550.438, *DF* = 1618, *p* = .884). Tabulated pattern analyses revealed that there were no patterns of concern with more than 2.5% of cases missing. Therefore it can be assumed that there is no significant pattern of missing data supplied by teachers when they completed the questionnaire.

Missing data analysis - parent

In order to screen the dataset for any patterns of missing data that might affect the overall results, the optimum sample of 154 parent surveys was assessed in the same way as the teacher dataset. Therefore, this sample included all of those valid surveys completed by a parent for whom a teacher had identified he child as having ASD, even if some of the survey sections were missing or incomplete. As for the teacher survey, data on attendance and academic achievement were not included from the analysis. Univariate analysis revealed that there were missing data for a number of the sections on the parent survey, as shown in the table below:

		Missing	
	N	**Count**	**Percentage**
Bullying mean	121	33	21.4
Behaviour mean	152	2	1.3
Positive relationships mean	138	16	10.4
Parental engagement mean	151	3	1.9
Wider participation mean	138	16	10.4
Bully frequency	149	5	3.2
Bully role	144	10	6.5

Table showing the number and percentage of missing data in the parent surveys

Little's (1988) test suggested that missing data in the five parent survey sections (bullying, behaviour, positive relationships, parental engagement and wider participation) were MCAR (χ^2 = 26.358, *DF* = 30, *p* = .657). This was also found to be the case for the individual survey items (χ^2 = 3070.950, *DF* = 3078, *p* = .532). Missing pattern analysis demonstrated that while the bullying section has a number of missing values, these do not appear related to other responses other than for very low numbers. Therefore, it can be assumed that data missing from the parent surveys are missing completely at random and do not depend on other responses.

Appendix 7: Descriptive statistics

7a: Descriptives for RQ2a – teacher

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Beh_mean_T	709	.00	3.00	.7338	.71032	1.018	.092	.268	.183
PosRel_mean_T	711	.00	3.00	1.6929	.58043	-.089	.092	.231	.183
Acad_achievement	634	-2.67336	2.91392	0E-7	.99762	-.264	.097	-.221	.194
Attendance	600	1.29	100.00	92.9861	9.45007	-5.153	.100	39.313	.199
Valid N (listwise)	505								

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 male	620	85.9	85.9	85.9
	2 female	102	14.1	14.1	100.0
	Total	722	100.0	100.0	

FSM_eligible

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 no	546	75.6	75.8	75.8
	1 yes	174	24.1	24.2	100.0
	Total	720	99.7	100.0	
Missing	System	2	.3		
Total		722	100.0		

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 white	602	83.4	84.4	84.4
	1 other ethnic group	111	15.4	15.6	100.0
	Total	713	98.8	100.0	
Missing	System	9	1.2		
Total		722	100.0		

Mainstream_special

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	586	81.2	81.3	81.3
	1	135	18.7	18.7	100.0
	Total	721	99.9	100.0	
Missing	System	1	.1		
Total		722	100.0		

Public_transport

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	578	80.1	81.5	81.5
	1	131	18.1	18.5	100.0
	Total	709	98.2	100.0	
Missing	System	13	1.8		
Total		722	100.0		

Year_5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	467	64.7	64.7	64.7
	1	255	35.3	35.3	100.0
	Total	722	100.0	100.0	

Year_7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	550	76.2	76.2	76.2
	1	172	23.8	23.8	100.0
	Total	722	100.	100.0	

Year_10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	594	82.3	82.3	82.3
	1	128	17.7	17.7	100.0
	Total	722	100.0	100.0	

SA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	640	88.6	89.9	89.9
	1	72	10.0	10.1	100.0
	Total	712	98.6	100.0	
Missing	System	10	1.4		
Total		722	100.0		

SAP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	424	58.7	59.6	59.6
	1	288	39.9	40.4	100.0
	Total	712	98.6	100.0	
Missing	System	10	1.4		
Total		722	100.0		

Sch_urbanicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 urban	653	90.4	90.4	90.4
	2 rural	69	9.6	9.6	100.0
	Total	722	100.0	100.0	

7b: Descriptives for RQ2a – parent

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Beh_mean_P	119	.00	2.44	.8607	.58641	.662	.222	-.097	.440
PosRel_mean_P	113	.40	2.90	1.7006	.49396	-.035	.227	.242	.451
Engage_mean_P	118	.63	3.00	2.3946	.56191	-.730	.223	.276	.442
Wider_part_mean_P	115	.00	3.00	1.5775	.69453	-.196	.226	.022	.447
Acad_achievement	103	-2.34265	2.33745	0E-7	.98518	.064	.238	-.045	.472
Attendance	107	71.14	100.00	94.7012	5.22812	-1.747	.234	4.252	.463
Valid N (listwise)	86								

SAP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 other send provision	67	56.3	56.8	56.8
	1 SAP	51	42.9	43.2	100.0
	Total	118	99.2	100.0	
Missing	System	1	.8		
Total		119	100.0		

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 male	98	82.4	82.4	82.4
	2 female	21	17.6	17.6	100.0
	Total	119	100.0	100.0	

FSM_eligible

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 no	90	75.6	75.6	75.6
	1 yes	29	24.4	24.4	100.0
	Total	119	100.0	100.0	

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 white	105	88.2	88.2	88.2
	1 other ethnic group	14	11.8	11.8	100.0
	Total	119	100.0	100.0	

Mainstream_special

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 mainstream	103	86.6	86.6	86.6
	1 special	16	13.4	13.4	100.0
	Total	119	100.0	100.0	

Public_transport

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 no	95	79.8	80.5	80.5
	1 yes	23	19.3	19.5	100.0
	Total	118	99.2	100.0	
Missing	System	1	.8		
Total		119	100.0		

YEAR5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 other year groups	75	63.0	63.0	63.0
	1 year 5	44	37.0	37.0	100.0
	Total	119	100.0	100.0	

YEAR10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 other year groups	102	85.7	85.7	85.7
	1 year 10	17	14.3	14.3	100.0
	Total	119	100.0	100.0	

SA

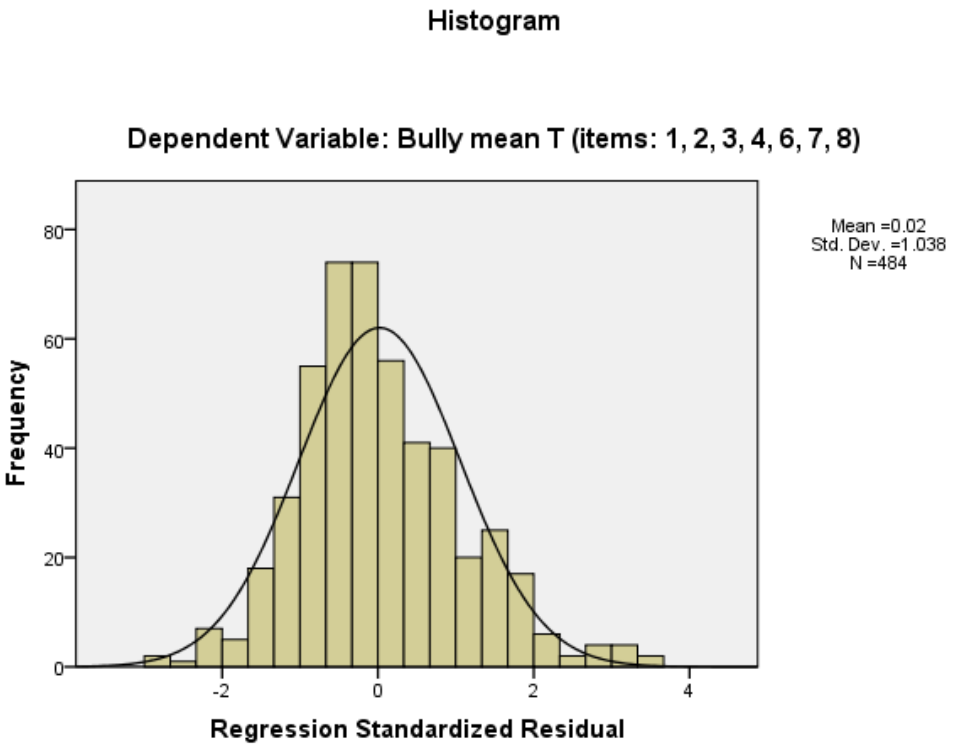
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 other SEND prov	110	92.4	93.2	93.2
	1 SA	8	6.7	6.8	100.0
	Total	118	99.2	100.0	
Missing	System	1	.8		
Total		119	100.0		

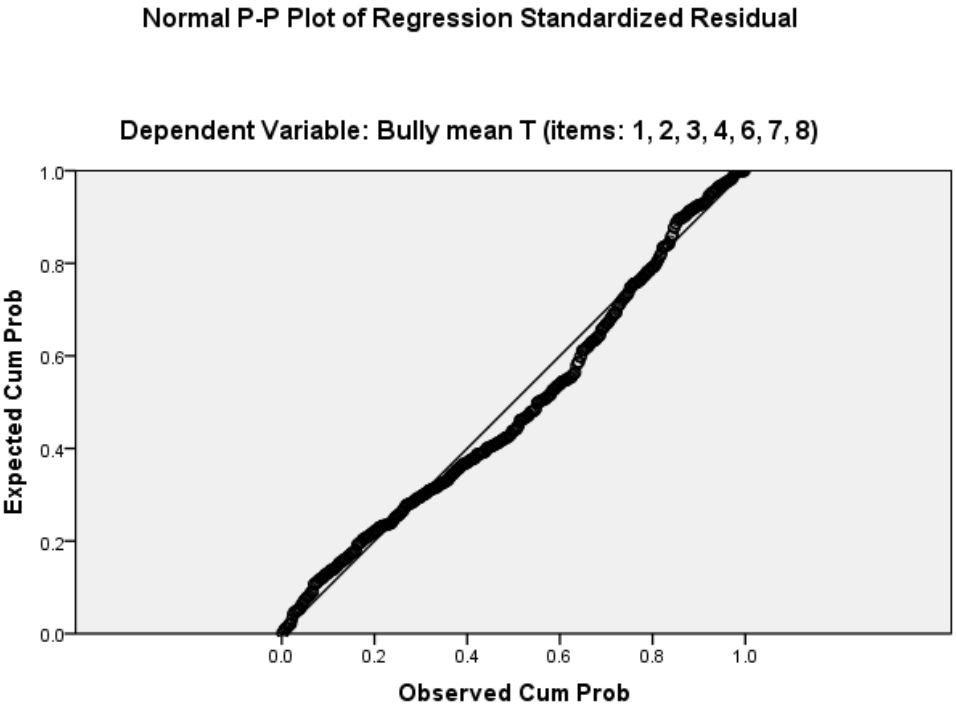
Sch_urbanicity

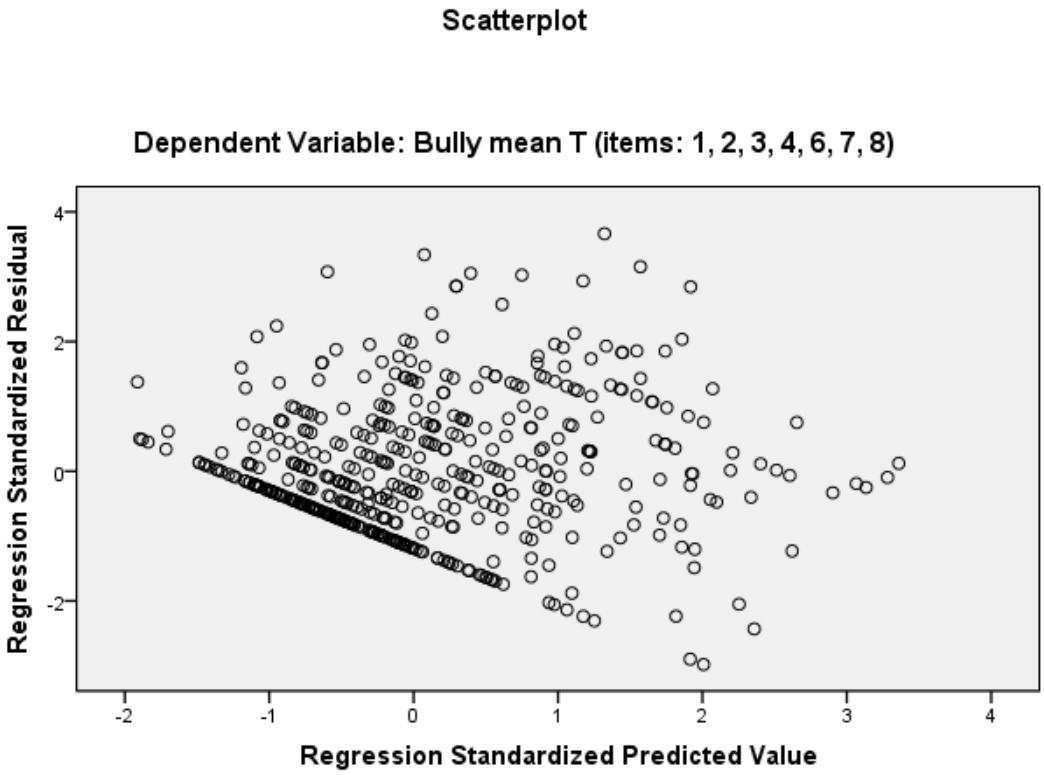
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 urban	100	84.0	84.0	84.0
	2 rural	19	16.0	16.0	100.0
	Total	119	100.0	100.0	

Appendix 8: Charts of assumptions for multiple regression

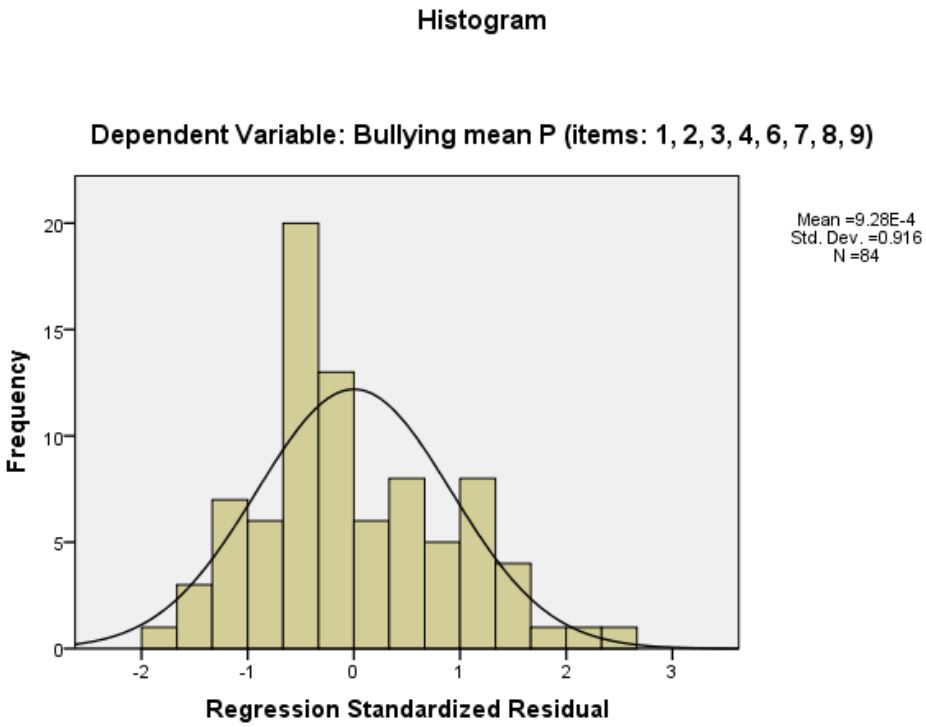
8a: Teacher data charts

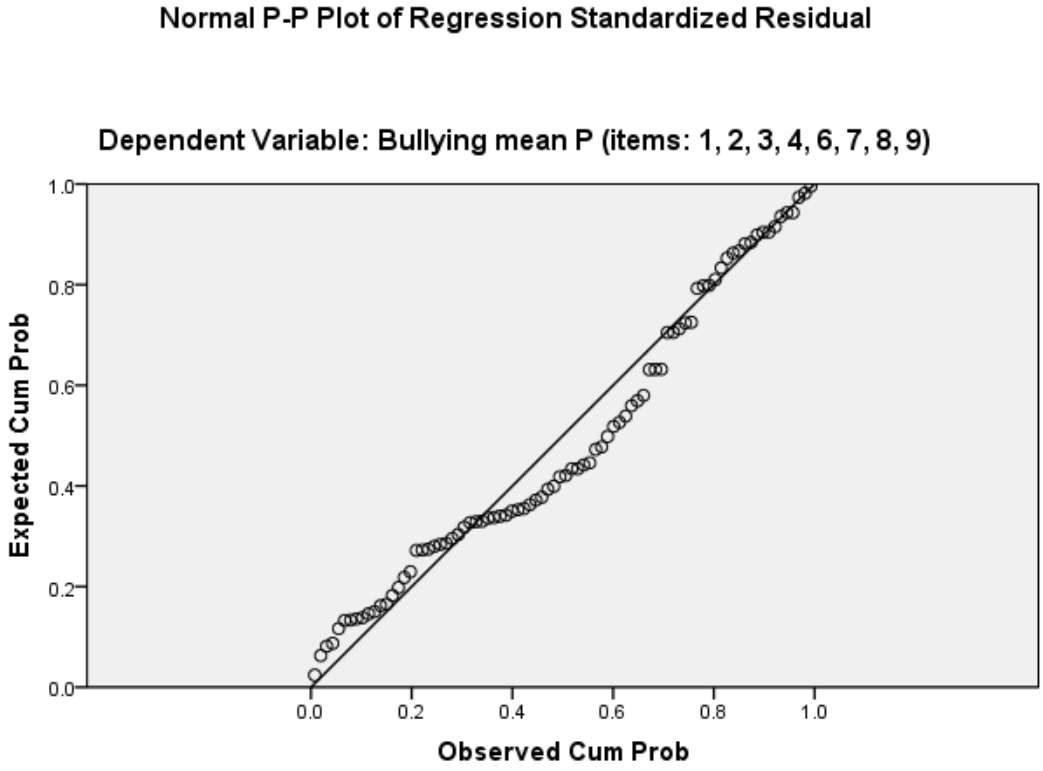





Scatterplot
Dependent Variable: Bully mean T (items: 1, 2, 3, 4, 6, 7, 8)
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-2
-1
0
1
2
3
4

8b: Parent data charts





Scatterplot