

**Trauma and PTSD:  
Their Relationship with Attachment and Recovery Styles in People with Psychosis**

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## **Thesis Abstract**

This thesis follows the paper-based format and Papers One and Two have been prepared for submission to Clinical Psychology Review and Schizophrenia Bulletin, respectively. The relevant submission guidelines are included in the appendix (Appendix A).

Research suggests that trauma plays a part in Post Traumatic Stress Disorder (PTSD) and psychosis, but it is unclear what role psychotic symptoms or hospitalisation have. Some research has been carried out on mediators and predictors of PTSD and integrating the evidence has key implications for individual and service outcomes. The two papers presented in this thesis aim to contribute to research in this area, followed by a critical review of the research, its relevance and future implications.

Paper One is a systematic review of the literature investigating the prevalence of psychosis-related and hospital-related PTSD and considered what factors moderate or mediate these symptoms. Studies showed high levels of psychosis-related and hospital-related PTSD and seventeen factors that may influence the development of psychosis-related or hospital-related PTSD were explored. However incidence rates in different populations are lacking and there is a need to better explore mediating and moderating factors.

Paper Two aimed to investigate the traumatic nature of psychosis and hospitalisation and their relationships with attachment and recovery styles in people with psychosis in a secure setting.

The final section, the Critical Review, aimed to place the research in a wider context, considering the findings from the research, limitations of the study, highlighting important issues for services, and implications for interventions and future studies.

## **Declaration**

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## **Introduction**

There are currently around 100,000 to 500,000 people in the UK with a diagnosis of schizophrenia (British Psychological Society, 2000), a problem characterised by unusual beliefs, unusual experiences and disorganised speech and thoughts. Psychosis is often accompanied by hospitalisation and over 27,000 people with a diagnosis of schizophrenia, schizotypal or delusional disorders were admitted to a psychiatric hospital in England in 2009-2010 (NHS Information Centre, 2011). More recently, more patients are managed at home producing higher levels of acuity, compulsory detention, behavioural disturbance and risk in inpatient units (Sainsbury Centre for Mental Health, 2004) and the circumstances of admission may be compulsory with police assistance and may involve interventions such as seclusion or restraint.

Historically the care of people with psychosis has been delayed, inadequate or non-existent (International Early Psychosis Association Writing Group, 2005) which has led to poor outcomes associated with a longer duration of untreated psychosis, deterioration in social functioning (Lieberman et al., 2001), quality of life and symptoms (Birchwood, Todd, & Jackson, 1998) and non-adherence to treatment (Edwards & McGorry, 2002). In response to this there has been a huge growth of interest in identification and rapid intervention, particularly psychosocial interventions, for psychosis. Advances in treatment options, as outlined by NICE Schizophrenia Guidance (National Institute for Clinical Excellence, 2009), include an emphasis on recovery, modern pharmacological practice, psychological interventions and working with families, with a move away from a disease and deficit model.

Despite this, the course and outcome of psychotic experiences is highly unpredictable (British Psychological Society, 2004). Comorbidity within psychosis is high and has been cited as a “fact of life” (Bland, Newman, & Orn, 1987). In particular, research has begun to disentangle the complex relationship between trauma, PTSD and psychosis (Mueser & Rosenberg, 2003). Within this, there is a growing body of literature indicating psychosis, and its treatment, is traumatic and can lead to the onset of PTSD (e.g., Beattie, Shannon, Kavanagh, & Mulholland, 2009; Mueser, Lu, Rosenberg, & Wolfe, 2010). The co-occurrence of psychosis and PTSD is related to more severe and chronic symptoms alongside higher rates of service use (Mueser & Rosenberg, 2001). Subsequently individuals may be further traumatised by their severity of psychosis and increased use of services and coercive measure such as seclusion and restraint, which may serve to further exacerbate and maintain psychotic experiences.

Given the recognized role of trauma in the development of PTSD and psychosis, it is essential to ascertain potential current and ongoing traumas (Kilcommons & Morrison, 2005). Little attention has been paid to the potentially traumatic nature of psychosis (Bendall, McGorry, & Krstev, 2006) or hospitalisation. Some research has been carried out on mediators and predictors of PTSD (e.g., incidence of trauma, pre-existing adjustment problems and perceived degree of threat, Ozer, Best, Lipsey, & Weiss, 2003). Integrating the evidence in this area and understanding how psychosis and its treatment may be experienced as traumatic has key clinical implications. First it allows healthcare providers to become more aware of the vulnerability of this group to develop PTSD symptoms and the importance of reducing the likelihood or impact of comorbidities. Second, it may allow individuals to access appropriate treatment and avoid inappropriate use of antipsychotic

medication. Undiagnosed and untreated PTSD may lead to an enduring and worse course of psychosis (Mueser, Rosenberg, Goodman, & Trumbetta, 2002) impacting on the individual carers (Magliano et al., 2000) and services (Newmann, Greenley, Sweeney, & Van Dien, 1998).

This thesis therefore aims to systematically review the literature around psychosis-related and hospital-related PTSD symptoms and examine the role of past trauma, attachment and recovery style in a long-stay inpatient population.

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**Section One: Literature Review**

**PTSD Symptoms associated with Hospital Experiences and Symptoms of Psychosis: A  
Systematic Review of the Literature**

**Paper One Word Count: 11,490**

## **Abstract**

Research suggests that trauma plays a part in PTSD and psychosis, but it is unclear what role psychotic symptoms or hospitalisation have. Some research has been carried out on mediators and predictors of PTSD and integrating the evidence has key implications for individual and service outcomes. This paper systematically reviewed literature investigating the prevalence of psychosis-related and hospital-related PTSD and considered what factors moderate or mediate these symptoms.

The review included 22 studies, published between 1980 and 2010. Studies showed high levels of psychosis-related and hospital-related PTSD, with prevalence rates varying from 11% to 67%. Studies explored seventeen factors that may influence the development of psychosis-related or hospital-related PTSD. A clear association between mood and psychosis-related and hospital-related PTSD was established, but inconsistent findings and an insufficient number of studies meant conclusions were unable to be drawn on the remaining factors.

Areas for future investigation include establishing incidence rates in different diagnostic groups, age groups and different treatment settings and exploring the role of psychological factors, such as appraisals, attachment styles and coping strategies, in mediating symptoms.

**Keywords:** Hospitalisation, psychosis, PTSD, SMI, trauma

## Introduction

Traditionally psychosis and Post Traumatic Stress Disorder (PTSD) have been regarded as theoretically distinct but there is a growing body of evidence linking the two together (Morrison, Frame, & Larkin, 2003). Recent research has focussed on identifying multiple links and pathways to both PTSD and psychosis. Trauma has long been cited as contributing to the development of psychosis. People with psychosis have a higher incidence of trauma (e.g., Bebbington et al., 2004; Lommen & Restifo, 2009). Different types of trauma have been recurrently identified as risk factors for psychotic experiences (e.g., childhood trauma; Janssen et al., 2004; Larkin & Read, 2008) and links have been made to the symptom content experienced (e.g., childhood sexual abuse and critical voice-hearing; Read, Goodman, Morrison, Ross, & Aderhold, 2004). A trauma occurring in adulthood, re-traumatisation or multiple traumas may also significantly increase the risk of developing psychosis (Larkin & Read, 2008).

PTSD and psychosis may be part of a range of responses to a traumatic event (Morrison et al., 2003). As well as having a higher trauma incidence, those with psychosis also have a higher incidence of, often undiagnosed, PTSD (Mueser et al., 1998). The rate of developing PTSD is significantly higher for those with a psychotic disorder (Mueser, Rosenberg, Goodman, & Trumbetta, 2002) and the severity of the trauma is associated with the severity of both PTSD and psychotic experiences (Kilcommons & Morrison, 2005). However there is a high degree of symptom similarity, as both have a number of common factors (e.g., intrusions), indicating they may be similar entities and diagnosis is then dependent on a culturally acceptable or unacceptable appraisal of the symptoms being made (Morrison et al., 2003).

Psychosis has also been cited as a traumatic event, leading to the development of PTSD (e.g., McGorry et al., 1991), despite the disagreement of whether it meets DSM-IV criteria (American Psychiatric Association, 1994). Psychotic symptoms often cause intense fear and distress (Bendall, McGorry, & Krstev, 2006), especially in the context of critical voice-hearing, command hallucinations or paranoid delusions. Psychotic experiences have the potential to be more distressing as they are internally generated and therefore allows experiences to be individualised (Shaner & Eth, 1989). Psychosis can also occur alongside harmful experiences, such as hospitalisation, which can be one of the most stressful aspects of mental health problems (Morrison, Bowe, Larkin, & Nothard, 1999). The co-occurrence of psychosis and PTSD is related to more severe and chronic symptoms alongside higher rates of service use (Mueser & Rosenberg, 2001). Subsequently individuals may be further traumatised by the severity of psychosis and increased use of services and coercive measures, such as seclusion and restraint, which may serve to further exacerbate and maintain psychotic experiences.

Little attention has been paid to the potentially traumatic nature of psychosis (Bendall et al., 2006) or hospitalisation. This is despite evidence that those hospitalised with psychosis may have an increased vulnerability to trauma in hospital (Frueh et al., 2000), with a pre-morbid trauma enhancing the risk of trauma in hospital (Steinert, Bergbauer, Schmid, & Gebhardt, 2007). Some research has examined mediators and predictors of PTSD (e.g., incidence of trauma, pre-existing adjustment problems and perceived degree of threat, Ozer, Best, Lipsey, & Weiss, 2003). Integrating the evidence in this area has key clinical implications as undiagnosed and untreated PTSD may lead to an enduring and worse course of psychosis such as increased severity of symptoms (Ross, Anderson, & Clark, 1994), decreased social functioning, prolonged distress (Bak et al., 2005), breakdown in

relationships, increased drug use (Mueser et al., 2002), increased stigma, increased risk of depression/suicide (Tarrier, Khan, Cater, & Picken, 2007) and reduced recovery (Goff, Brotman, & Kindlon, 1991). Consequently, carers experience a heavier impact of care (Magliano et al., 2000) and services experience an increased cost due to increased and prolonged service use (Newmann, Greenley, Sweeney, & Van Dien, 1998). An increased understanding of the experiences that are most closely associated with distress and levels of PTSD could therefore inform assessment and treatment approaches for improved outcomes.

Despite the research, it is unclear what role psychotic symptoms and aspects of hospitalisation have. One review (Morrison et al., 2003) has focused on the relationship between trauma and psychosis with exploration of research into PTSD in response to psychosis and experiences of psychiatric services. Since this time, more studies have been completed and to date no review has looked at the relationship between hospitalisation and psychosis with PTSD symptoms. This systematic review aims to critically review studies investigating psychosis-related and hospital-related PTSD symptoms and to answer the ensuing questions: (i) what is the incidence of psychosis-related and hospital-related PTSD; (ii) how does psychosis and hospitalisation relate to PTSD/PTSD symptoms; (iii) what factors moderate or mediate psychosis-related and hospital-related PTSD/PTSD symptoms. The review will conclude by discussing limitations of the studies and review and implications for research.

## Method

### Definition of terms

‘Hospital experiences’ were defined as incidents that were experienced or witnessed at or during an admission to a psychiatric hospital, including police involvement, the hospital setting, staff, patients and the use of medication, restraint and seclusion.

‘PTSD symptoms’ were informed by the DSM-IV criteria (APA, 1994). By definition, DSM-IV excludes psychotic experiences as meeting the A<sup>1</sup> criteria as the person has to have been exposed to an event that involved actual or threatened death or serious injury or a threat to the physical integrity of self or others. It has remained unclear whether the experience of psychosis meets this (Shaw, McFarlane, & Bookless, 1997). Psychological events can be perceived as intensely stressful by an individual and it is suggested that the criterion for PTSD should therefore extend to include threats to psychological integrity (Shaw et al., 1997). Studies have placed emphasis on the A<sup>2</sup> criteria (i.e., a response of intense fear, helplessness or horror) as being important in determining PTSD and for this review the traumatic event is regarded as an experience resulting from a psychiatric hospitalisation or psychosis resulting in intense fear, helplessness or horror. There is agreement that hospital experiences can meet A<sup>1</sup> criteria (Priebe, Broker, & Gunkel, 1998). PTSD symptoms are then set out by criterion A<sup>2</sup>, B, C and D consisting of three symptom clusters: re-experiencing, avoidance and hyperarousal symptoms (APA, 1994).

## **Search procedure**

Potential studies were identified via an electronic keyword search of three major databases: Web of Knowledge, MEDLINE and PsycINFO. The terms ‘PTSD’ OR ‘trauma’ AND ‘psychosis’ OR ‘schizophrenia’ OR ‘severe mental’ OR ‘inpatient’ OR ‘hospital experience’ were entered for searching in article abstracts. Articles identified as potentially relevant, by title, were collected and assessed for appropriateness by the first author and then reviewed for appropriateness by the first and second author.

## **Inclusion criteria**

Included studies were manually reviewed by the first author to meet the following criteria: a report of empirical research; published from 1980 up to and including the year 2010; written in English; reporting on symptoms of PTSD with psychosis or severe and enduring mental health problems and hospitalisation. Dissertation abstracts, editorials and commentaries were excluded. Eighteen articles were initially identified. From these papers, five relevant studies were then detected by inspecting the reference lists. Articles relating to psychological distress in relation to psychosis and hospitalisation were also included allowing qualitative studies to meet criteria. After applying these criteria, overall 22 papers were identified for this review.

## Results

### Overview of studies

Table 1 provides a summary of published articles in date order. The majority of studies took place in the UK ( $n=8$ ) with the remainder taking place in the USA ( $n=5$ ), Australia ( $n=6$ ), Finland ( $n=2$ ) and Germany ( $n=1$ ). Sample size ranged from  $n=2$  to  $n=142$  with an age range of 14 to 73 years. Studies sampled community teams ( $n=12$ ), acute inpatient wards ( $n=7$ ), acute inpatient wards and community teams ( $n=2$ ) and Early Intervention teams ( $n=1$ ). Diagnoses in the studies were broken down as follows: first-episode psychosis ( $n=2$ ), schizophrenia/psychosis ( $n=11$ ), schizophrenia/psychosis excluding affective psychosis and schizoaffective disorder ( $n=3$ ), bipolar with psychotic features ( $n=1$ ), serious mental illness ( $n=2$ ), mental health problems unspecified ( $n=2$ ), mental health problems specified (bipolar affective disorder, depression, schizophrenia and borderline personality disorder) ( $n=1$ ).

The majority of studies employed quantitative approach ( $n=18$ ) with the remainder using a qualitative approach ( $n=4$ ), employing thematic analysis or grounded theory. PTSD was assessed in 18 studies, psychotic symptoms in 15 studies, mood in seven studies, hospital experiences in seven studies, trauma history in five studies and recovery style in three studies.

## **Experiences of hospitalisation and psychotic symptoms**

A consistent finding across the studies was that psychosis and hospitalisation were highly distressing (Beattie, Shannon, Kavanagh, & Mulholland, 2009; Centofanti, Smith, & Altieri, 2005; Cusack, Frueh, Hiers, Suffoletta-Maierle, & Bennet, 2003; Dunkley, Bates, Foulds, & Fitzgerald, 2007; Jackson, Knott, Skeate, & Birchwood, 2003; Koivisto, Janhonen, & Vaisanen, 2003; McGorry et al., 1991; Morrison et al., 1999; Mueser, Lu, Rosenberg, & Wolfe, 2010; Robins, Sauvageot, Cusack, Suffoletta-Maierle, & Frueh, 2005; Shaw et al., 1997; Tarrrier et al., 2007, Wood & Pistrang, 2004). One study found that PTSD symptoms were linked more to the experience of hospitalisation rather than psychosis (McGorry et al., 1991) and three studies found the contrary (Beattie et al., 2009; Meyer, Taiminen, Vuori, Aijala, & Helenius, 1999; Mueser et al., 2010). Given these studies are 20 years apart, their findings may reflect the progression of psychiatric care and efforts to reduce the use of coercive measures (e.g. seclusion) (Appelbaum, 1999), leading psychosis to be experienced as more distressing.

Negative and distressing aspects of treatment were frequently reported across studies with the majority experiencing restraint, seclusion, sexual assaults, physical assaults and coercive measures (e.g. being forced to take medication) (Cusack et al., 2003; Frueh et al., 2005; Harrison & Fowler, 2004). There was some variation in what constituted the most distressing hospital experience, which may be due to different pathways to hospital, durations of admission, hospital site policies or assessment measures. These were shown to be seclusion, having thoughts of harming family, physical abuse (Shaw et al., 1997), confusion, police insensitivity, fear of other patients, staff attitudes, being forced to take

medication (TARRIER et al., 2007), thoughts of suicide, para-suicide (Centofanti et al., 2005), first admission and recent admission (Beattie et al., 2009).

Hospitalisation was seen as inevitable but was experienced as difficult, frightening (Koivisto et al., 2003), threatening, terrifying and unsafe (Wood & Pistrang, 2004) and individuals felt vulnerable and shameful (Koivisto et al., 2003; Wood & Pistrang, 2004). Isolation from family, lack of choice and not understanding reasons for admission were reported as distressing (Dunkley et al., 2007). The environment was also identified as negative, such as noise levels (Priebe et al., 1998), general conditions, locked doors, police-assistance (Dunkley et al., 2007), rules (Dunkley et al., 2007; Priebe et al., 1998) and being around other patients (Dunkley et al., 2007; Robins et al., 2005). Aspects of treatment experienced as negative included involuntary admissions (Mueser et al., 2010), unkind and rigid treatment (Priebe et al., 1998), sedation (Dunkley et al., 2007), seclusion (Dunkley et al., 2007; Mueser et al., 2010), medication side-effects, being forced to take medication and restraints (Mueser et al., 2010). Seclusion and restraint were highlighted as terrifying, frightening and compared to an attack and forcible administration of medication was compared to execution and molestation (Wood & Pistrang, 2004). Furthermore, communications with the legal system were seen to be linked with distress and powerlessness (Dunkley et al., 2007).

Interactions with staff were linked with distress, including staff responses and treatment (Dunkley et al., 2007), embarrassing and humiliating experiences, lack of fairness, respect, empathy and support (Priebe et al., 1998) and included receiving threats (Mueser et al., 2010). In interviews, staff acknowledged their ability and inability to protect patients and recognised that other staff were intimidating and treated patients as lesser people resulting in humiliation and distress (Wood & Pistrang, 2004). The threat and experience of violence

was also identified as a negative aspect of hospitalisation (Dunkley et al., 2007; Priebe et al., 1998), which included potentially violent staff members (Robins et al., 2005) and an unpredictability of both aggression and rescue (Wood & Pistrang, 2004).

Negative and distressing aspects of psychosis were frequently reported across studies and more PTSD symptoms were related to psychosis than hospitalisation (Harrison & Fowler, 2004). The experience of psychosis included themes of uncontrollability over oneself, fear of decision-making, loss of trust, feelings of change, vulnerability, insecurity, shame, confusion, anxiety, anger, guilt, distress and fear of going “mad” (Koivisto et al., 2003). There was some variation as to what constituted the most distressing aspect of psychosis, which may be explained by differing appraisals, attributions or meta-cognitions. Beliefs about being controlled, olfactory hallucinations (Shaw et al., 1997), beliefs that someone means harm (Wood & Pistrang, 2004; Shaw et al., 1997), paranoid thoughts, fear of losing one’s mind, violent, strange or embarrassing behaviour, putting oneself in danger, frightening hallucinations (Mueser et al., 2010), auditory hallucinations, affective symptoms (Beattie et al., 2009) and unusual experiences (Wood & Pistrang, 2004) were all associated with high distress. A number of negative consequences resulting from psychosis were identified, such as a persistent loss, change or disruption to life, physical harassment/violence, suicidal ideation and para-suicide (Tarrier et al., 2007).

### **Rates of PTSD**

Fifteen studies reported on PTSD rates showing a considerable subgroup experienced PTSD symptoms following a psychotic episode. Nine studies reported a combined psychosis and hospitalisation PTSD rate due to difficulties differentiating and accurately

assessing the experiences separately. Prevalence rates varied in the studies from 11% (Meyer et al., 1999) to 67% (Frame & Morrison, 2001).

Inspecting these rates further, five studies investigating patients admitted to a psychiatric unit for a psychotic episode found psychosis-related and hospital-related PTSD rates of 11% (Meyer et al., 1991), 38% (TARRIER et al., 2007) and 52.3% (Shaw et al., 1997; Shaw, McFarlane, Bookless, & Air, 2002). One further study separated the two stressors and found rates of 47% and 31% for psychosis-related and hospital-related PTSD respectively (Mueser et al., 2010).

At discharge from hospital, one study found the psychosis-related and hospital-related PTSD rate to be 67% which then reduced to 50% 4 to 6-months later (Frame & Morrison, 2001), corresponding with 45.8% found at 4-month post-discharge and 34.5% 11-month post-discharge from hospital (McGorry et al., 1991). Seven studies investigating patients in the community found psychosis-related and hospital-related PTSD rates of 25% (Centofanti et al., 2005), 30% (Kennedy et al., 2002), 31% (Jackson et al., 2003), 31% and 45% in relation to admission and psychosis (Beattie et al., 2009), 37% in relation to psychosis only (White & Gumley, 2009), 51.4% (Priebe et al., 1998) and 61.1% in relation to psychosis only (Chisholm, Freeman & Cooke, 2006). One study in a community sample with severe mental illness found 44% had hospital-related PTSD (Morrison et al., 1999).

Five studies noted that participants who did not meet criteria for a PTSD diagnosis did exhibit a high level of intrusions, avoidance and arousal (Centofanti et al., 2005; Jackson et al., 2004; Meyer et al., 1999; Mueser et al., 2010; Shaw et al., 1997), indicating that participants experienced PTSD symptoms sub-clinically. This suggests that patients who were under the psychosis-related or hospital-related PTSD threshold still experience an increase in PTSD symptoms.

The differing level of post-psychotic PTSD prevalence rates may have been due to the different assessment tools used, the different diagnoses selected for the studies (e.g., affective psychosis), the differing rates of voluntary and involuntary admissions, the exclusion of previous trauma, individual hospital policies regarding coercive measures and the length of follow-up. For many of the studies, the inclusion criteria did not create a homogenous participant group, such as that in McGorry et al. (1991), and for some studies (e.g., Morrison et al., 1999) it was unable to determine whether the group was homogenous or not, as no diagnosis or reason for admission was ascertained.

Some prevalence rates included experiences that did not meet (Chisholm et al., 2006; Jackson et al., 2003; Priebe et al., 1999; Tarrrier et al., 2007) or it was uncertain whether they did meet criterion A<sup>1</sup> (Beattie et al., 2009; Frame & Morrison, 2001; Kennedy et al., 2002; Meyer et al., 1999; Shaw et al., 1997, 2002) which may account for differences in the reported rates. Some measures had not been formally validated (e.g., McGorry et al., 1991) and levels of avoidance are hard to measure with an inpatient population.

The stage of illness did vary in the studies as some focussed on patients with a first-episode (Jackson et al., 2003; Tarrrier et al., 2007) or patients with a limit of two or three episodes. This neglected those who had experienced multiple episodes or unremitting psychosis and so their prevalence rates remain unknown. None of the studies completed a longer-term follow-up and so there were no rates of psychosis-related and hospital-related PTSD for people who had experienced psychosis (and treatment) for many years, and ignores those with delayed-onset PTSD.

Some measures of hospital experiences did not systematically ask about all areas of subjective experience and just focussed on the use of medication, seclusion and restraint. This is to the detriment of other traumatic experiences and may have had an impact on the

prevalence rates found. Sensitivity may have been reduced by restrictions involved in responses to interviews and questionnaires.

### **Factors associated with PTSD symptoms**

Seventeen factors were identified in the studies as correlating with, or influencing the likelihood of developing, psychosis-related and hospital-related PTSD.

#### **Severity of psychosis.**

Five studies looked at the associations between severity of psychotic symptoms on psychosis-related and hospital-related PTSD symptoms. Priebe et al. (1999) found the severity of psychotic symptom was associated with treatment-related PTSD. Meyer et al. (1999) and White and Gumley (2009) both found those experiencing more psychotic psychopathology also experienced more PTSD symptoms and this was positively correlated with psychosis-related PTSD. In this same study, a total PANSS score of above 63 was the only significant risk factor for the development of PTSD and positive symptoms had an independent impact on predicting PTSD. This study provides evidence for a link between severity of psychosis and levels of traumatisation. However, two studies did not find differences between severity of psychotic symptoms and a PTSD diagnosis and the distress associated with intrusions was found both to be and not to be positively correlated with the severity of psychosis (Shaw et al., 1997, 2002). Both of these studies excluded patients who recovered quickly and were discharged and patients who were highly symptomatic,

akathisia or over-sedated which may account for these findings. Results may have been further biased by reluctance to reveal information.

### **Type of psychotic symptom.**

Ten studies looked at the associations between different psychotic symptoms on psychosis-related and hospital-related PTSD symptoms. The type of symptom experienced has been highlighted as influencing the development of PTSD and persecutory delusions have been cited as primary as they are essentially about threat (Freeman & Garety, 2000). Studies showed the PTSD group were more likely to have persecutory delusions as well as passivity phenomena, visual hallucinations (Shaw et al., 1997, 2002), thought broadcast, mind-reading and paranoid beliefs (e.g., being followed) (Shaw et al., 2002). During the first week of admission, preoccupation, suspiciousness/persecution, tension, active social avoidance and emotional withdrawal were positively correlated with psychosis-related PTSD symptoms and delusions and hallucinations both had independent associations with psychosis-related PTSD symptoms. Eight weeks later, suspiciousness/persecution, tension, active social avoidance, emotional withdrawal, excitement and hallucinations were positively correlated with psychosis-related PTSD symptoms and unusual thought content was found to be independently associated with psychosis-related PTSD scores (Meyer et al., 1999).

Other studies found conflicting results. Positive symptoms were associated with hyperarousal related to hospitalisation only (Harrison & Fowler, 2004) and other studies found no correlation between hallucinations and delusions with intrusions or avoidance (Jackson et al., 2003). Those with persecutory delusions had higher distress scores although

this was not statistically significant in comparison to those with other types of delusion (Chisholm et al., 2006). However, some participants had not had an inpatient admission raising the prospect that their psychotic symptoms were less severe. Referrals to participate in this study came through mental health services and so health professionals may have de-selected those who would find the research too distressing, meaning that patients with more threatening or distressing persecutory delusions may not have taken part.

Two studies found participants who avoided traumatic memories of psychosis or hospital, or experienced hyperarousal and avoidance of traumatic hospital memories, experienced more negative symptoms (Harrison & Fowler, 2004; Priebe et al., 1999). Meyer et al. (1999) and White and Gumley (2009) also found a positive correlation between the number of negative symptoms and psychosis-related PTSD. Conversely, McGorry et al. (1991) found no significant relationship between negative symptoms and PTSD symptoms. They did identify that the mean level of negative symptoms rose in the PTSD group, which did not occur with the non-PTSD group. However this discrepancy may be explained by the small sample size subsequently increasing the possibility of type 2 statistical error. Furthermore participants had experienced a first-episode of psychosis which suggests that they may not have experienced as many negative symptoms in comparison to someone with a longer duration of illness.

In contrast, no significant associations were found between PTSD scores and positive symptoms (White & Gumley, 2009) or PTSD scores and positive, negative or general symptoms (Tarrier et al., 2007), indicating that the type of symptom may not have a role in PTSD. Once more participants who took part were experiencing a first-episode of psychosis and were selected by keyworkers. This again means that the participants may

have experienced psychosis for a shorter length of time and those with more distressing psychotic experiences or trauma histories could have been de-selected.

There were limitations to the reviewed studies. Some only measured negative symptoms (McGorry et al., 1991), others did not look at key associations, such as between positive and traumatic symptoms (Shaw et al., 1997), and some did not separate psychotic experiences further than positive or negative (Meyer et al., 1999). Under-reporting due to shame, stigma or embarrassment may have occurred as many were reported to deny symptoms when asked directly, but volunteer symptoms indirectly throughout the interview (Shaw et al., 1997). Some researchers were clinicians at research sites and some interviewed participants just before or after discharge from hospital (Shaw et al., 1997, 2002). This clearly may have had some effect on responses and may have increased under-reporting in fear of delaying discharge or increasing the likelihood of recall.

### **Appraisals of psychosis.**

Two studies examined appraisals of symptoms on psychosis-related and hospital-related PTSD symptoms. Chisholm et al. (2006) found increased PTSD symptoms were significantly associated with higher perceptions of the persecutor's power (and therefore an increase in threat), greater ratings of the deservedness of persecution, awfulness of the threat, inability to cope, and lower ratings of control. White and Gumley (2009) found the psychosis-related PTSD group had increased negative appraisals about paranoid thoughts, intolerance of uncertainty and fear of recurrence. In theory, these items may be associated with increased distress and regression analyses showed higher distress due to psychosis and hospitalisation had more pronounced PTSD symptoms (Shaw et al., 2002).

### **Duration of psychosis.**

The duration of experiences was commented on by three studies. Chisholm et al. (2006) found participants who had experienced a relapse had a higher number of psychosis-related and hospital-related PTSD symptoms in comparison to participants with a first-episode of psychosis. Meyer et al. (1999) found positive symptoms two months later were more clearly associated with levels of PTSD. These two studies indicate that the continuance or relapsing of psychotic symptoms may be a risk factor for the development of PTSD. However Jackson et al. (2003) found that residual psychotic symptoms were unrelated to PTSD 18-months after a first-episode of psychosis, although this may have been due to familiarity of the experiences, successful use of coping strategies, duration of treatment or desensitisation over time.

### **Mood.**

Twelve studies looked at associations between mood on psychosis-related and hospital-related PTSD symptoms. Significant correlations were found between depressive symptoms and PTSD symptoms (Beattie et al., 2009; Kennedy et al., 2002; McGorry et al., 1991; Meyer et al., 1999, Mueser et al., 2010), between anxiety symptoms and PTSD symptoms (Jackson et al., 2003; Meyer et al., 1999; Mueser et al., 2010) and between depressive and anxiety symptoms and PTSD symptoms (Morrison et al., 1999; Priebe et al., 1999; White & Gumley, 2009).

In multivariate analysis, depression and anxiety components were both independently associated with psychosis-related PTSD scores during the first week of admission and

seven weeks later (Meyer et al., 1999). Depression was found to be specifically associated with intrusive memories relating to hospitalisation and hyperarousal relating to both psychosis and hospitalisation (Harrison & Fowler, 2004). Higher levels of helplessness were found to be significantly associated with higher levels of PTSD symptoms in relation to psychotic experiences (Chisholm et al., 2006). The PTSD group was also found to experience significantly more suicidal thoughts (Shaw et al., 2002). These studies indicate clear evidence for an association between PTSD and levels of depression.

### **Number, type and severity of hospital experiences.**

Seven studies looked at the associations between hospital experiences on psychosis-related and hospital-related PTSD symptoms. Cusack et al. (2003) found negative hospital experiences independently contributed to the variance in subjective distress. Centofanti et al. (2005) found increased PTSD symptoms were linked to increased distress ratings for hospital experiences. They also found higher PTSD scores were positively related to a higher overall number of negative hospital experiences, although this was only significant for those experiencing harm to self or others or police transportation to hospital. This may be explained by a potential link between symptom severity, its associated distress and the need for police assistance.

Three studies found the total number of hospital experiences did not significantly relate to PTSD symptoms (Beattie et al., 2009; Meyer et al., 1999; Shaw et al., 2002). Physical harassment or violence was shown to have significantly higher avoidance, arousal and total PTSD symptoms scores (Tarrier et al., 2007). Interestingly, many participants found

objectively non-traumatic experiences, such as separation from activities, as upsetting as obviously traumatic experiences like seclusion (Shaw et al., 2002).

These findings cannot be generalised due to the limitation that some studies interviewed participants soon after they were admitted to hospital (e.g., Meyer et al., 1999; Mueser et al., 2010) and therefore they had only a limited time to encounter negative hospital experiences. Furthermore, the assessment measures used were often unpublished questionnaires with unknown reliability and validity.

### **Legal status and number of admissions.**

Nine studies looked at associations between legal status on psychosis-related and hospital-related PTSD symptoms. Significant associations were found between PTSD symptoms and being involuntarily detained (Tarrier et al., 2007), PTSD symptoms and the number of involuntary admissions (Morrison et al., 1999) and those with involuntary admissions were found to report more negative experiences (Priebe et al., 1999). Those who had been involuntarily admitted either for the first or subsequent time and those who had experienced coercive measures had more hospital-related PTSD symptoms (Meyer et al. 1999). In contrast, the same study also found that participants who were voluntary admitted had higher psychosis-related PTSD scores. Similarly Morrison et al. (1999) found patients with a history of involuntary admissions had significantly lower PTSD symptoms. However the severity of psychotic symptoms was not controlled for in these studies which may have had a confounding effect.

Morrison et al. (1999) suggested that first admissions may be more traumatic, independent of current mental state. A general trend was also found towards higher PTSD

rates in those who had been recently discharged (Centofanti et al., 2005). In comparison, seven studies found no significant relationships between the number of admissions or involuntary status with PTSD symptoms or caseness (Centofanti et al., 2005; Frame & Morrison, 2001; Jackson et al., 2003; McGorry et al., 1991; Priebe et al., 1999; Shaw et al., 2002; White & Gumley, 2009). Duration of hospitalisation (Morrison et al., 1999; Tarrier et al., 2007), time since admission (Centofanti et al., 2005; Morrison et al., 1999; White & Gumley, 2009), time since first admission (Priebe et al., 1999), place of first treatment, police involvement, admission to secure ward (Jackson et al., 2003) and treatment setting (Shaw et al., 2002) were all found to have no association with PTSD symptoms.

In spite of this, the differences between voluntary and involuntary admissions may have been contaminated if participants experienced coercive voluntary admissions or false promises of short voluntary inpatient stays with the threat of use of the Mental Health Act if they asked to leave. Indeed staff and patients have been found to disagree as to whether an admission is voluntary or involuntary (Eriksson & Westrin, 1995) and this may not always correspond with the documented legal status of the admission.

### **Patient demographics.**

Seven studies looked at the associations between patient demographics on psychosis-related and hospital-related PTSD symptoms. Patients who met PTSD criteria were more likely to be unemployed according to one study (Priebe et al., 1999). Another found female patients had more psychosis-related PTSD symptoms than men and that younger service users had a higher level of traumatic stress (Meyer et al., 1999). This is consistent with research that shows that females have a higher prevalence of PTSD (Zlotnick, Zimmerman,

Wolsdorf, & Mattia, 2001) even when the type of trauma is controlled for (Breslau, Chilcoat, Kessler, Peterson, & Lucia, 1999). The mean age of onset for PTSD has been found to differ between the sexes. Women have been found to have a younger age of onset than men (Neria et al., 2002), a younger age has been found to significantly predict PTSD in women, although not for men (Bromet, Sonnega, & Kessler, 1998) but other studies have found that age does not correlate with PTSD severity or predict PTSD in either gender (Christiansen & Elklit, 2008).

Other studies found no associations between age (Mueser et al., 2010; Priebe et al., 1999; Shaw et al., 2002; White & Gumley, 2009), age of onset (Shaw et al., 2002) or duration of untreated psychosis (Jackson et al., 2003; Tarrier et al., 2007) with PTSD symptoms which may strengthen the case for other factors such as appraisals, attributions and coping style. Also no associations were found between gender (Mueser et al., 2010; Priebe et al., 1999; White & Gumley, 2009), education (Mueser et al., 2010; Priebe et al., 1999), professional qualifications, living situation, occupational status, employment, dosage of neuroleptics (Priebe et al., 1999), ethnicity, marital status or pre-morbid employment (Mueser et al., 2010) with PTSD symptoms.

### **Past trauma.**

Eight studies looked at the associations between past trauma on psychosis-related and hospital-related PTSD symptoms. A history of trauma has been cited as a significant predictor of future PTSD (Chisholm et al., 2006) and in many of these studies, patients had been exposed to previous and often multiple traumas (Beattie et al., 2009; Frueh et al., 2005; Kennedy et al., 2002; Shaw et al., 2002; Tarrier et al., 2007). Previous trauma was

found to be significantly associated with higher levels of psychosis-related PTSD symptoms (Chisholm et al., 2006) and higher levels of psychosis-related and hospital-related PTSD symptoms (Centofanti et al., 2005). The degree of fear, helplessness and horror experienced in hospital was found to correlate with the number of historical traumas experienced, and particularly if the prior trauma was physical or sexual abuse (Cusack et al., 2003). Past physical and sexual traumas were related to current levels of intrusion and avoidance symptoms (Beattie et al., 2009). Those with a history of physical or sexual assault reported significantly higher levels of concern for personal safety, helplessness, fear and distress in hospital (Frueh et al., 2005). Those who had a lifetime history of sexual assault as an adult had significantly higher traumatic hospital experiences, particularly having medication used as a threat/punishment, unwanted sexual advances, inadequate privacy and sexual assaults from staff (Frueh et al., 2005).

Conversely other studies found previous trauma did not play a predictive role in psychosis-related and hospital-related PTSD (Shaw et al., 2002). Mueser et al. (2010) found multiple traumatic events or a history of sexual abuse/assault were not related to the likelihood of developing psychosis-related and hospital-related PTSD. They did find a non-significant trend for the PTSD group to have been exposed to more lifetime traumas. Tarrrier et al's (2007) study found previous trauma did not influence current psychosis-related and hospital-related PTSD scores, although they do not document how previous trauma was ascertained.

Once more, sampling bias generates difficulties in generalising findings regarding previous trauma and psychosis-related and hospital-related PTSD symptoms. It is possible that participants who had higher levels of previous trauma and a higher level of psychosis-

related and hospital-related PTSD may have opted out from these studies and staff may have de-selected these patients with the remit of avoiding re-traumatisation.

### **Insight.**

One study looked at the associations between insight on psychosis-related and hospital-related PTSD symptoms. It has been hypothesised that people with more insight into their illness may be less protected by the denial of their symptoms and therefore more likely to experience psychosis-related and hospital-related PTSD. However, Shaw et al. (2002) found insight scores were not significantly related to psychosis-related and hospital-related PTSD symptoms or psychotic symptom severity. Having “positive” insight (i.e., understanding of changed functioning) was positively correlated with the total number of psychotic symptoms, total symptom distress, intrusions from symptoms and more avoidant behaviour. This suggests having “positive” insight may lead to an individual being less protected to the experience of psychosis.

### **Recovery style.**

Two studies looked at the associations between recovery style and psychosis-related and hospital-related PTSD symptoms. Recovery style has been cited as an important factor in the recovery of psychosis and is the way that people adapt to their experiences of psychosis, for example: whether they wish to push it to the back of their minds and minimise it (‘sealing-over’) or whether they relate it to their everyday experience (‘integration’) (McGlashan, Docherty & Siris, 1976). No difference was found between recovery style and

psychosis-related and hospital-related PTSD symptoms/caseness (Jackson et al., 2003). However the number of ‘sealers’ in this study was low and it is possible that some who were eligible to participate declined due to higher levels of avoidance and trauma. This has clear implications for the results found between recovery style and psychosis-related and hospital-related PTSD symptoms.

Jackson et al’s (2003) study did find that sealers were more likely to implement cognitive strategies to avoid intrusions than integrators and had a trend towards less frequent intrusions about psychosis. In contrast, one other study found that patients in the psychosis-related and hospital-related PTSD group were more likely to integrate their experiences of psychosis rather than seal-over (Mueser et al., 2010). These differences may be explained by the differences in assessment measures, as Mueser’s study used the Integration/Sealing Over Scale (McGlashan, 1987) which relies on the interviewer’s opinion on the patient’s recovery style, whereas Jackson’s study used the Recovery Style Questionnaire (Drayton, Birchwood & Trower, 1998) which is a self-report measure with excellent psychometric properties (Drayton et al., 1998).

### **Other variables.**

Two studies also commented on other variables and their association with psychosis-related and hospital-related PTSD symptoms. Lower levels of crisis support were significantly associated with higher levels of PTSD symptoms from psychotic episodes (Chisholm et al., 2006). Those in the PTSD group had a higher number of days abusing drugs in the past month (Mueser et al., 2010).

## **Summary of findings**

A consistent finding across the studies was that the experience of psychosis and hospitalisation was highly distressing and a considerable sub-group met criteria for PTSD in relation to their experiences. Psychosis-related and hospital-related PTSD prevalence rates varied from 11% to 67%, which may be accounted for by a number of different factors (e.g., different assessment tools, inclusion/exclusion criteria, use of A<sup>1</sup> criteria). Studies to date have explored seventeen factors that may influence the likelihood of developing psychosis-related or hospital-related PTSD. The studies establish a clear association between mood and psychosis-related and hospital-related PTSD. Although a number of studies investigated the link between severity of psychosis and the type of psychotic symptoms with psychosis-related and hospital-related PTSD, the results gleaned are conflicting and so remain inconclusive. Some evidence was found for the link with appraisals of psychosis (e.g., appraisals of psychosis, control, uncertainty and recurrence) but there have not been enough studies to substantiate this finding. The majority of studies found high rates of past trauma but there were inconsistent findings between past trauma with rates of psychosis-related and hospital-related PTSD. Furthermore, there were not enough studies to draw conclusions with the duration of psychosis, number of hospital experiences, level of insight, recovery style, drug use or levels of crisis support. Inconsistent findings across studies were found for legal status and number of admissions. The majority of studies found no associations with patient demographics.

## **Limitations of the Review**

The findings of this review need to be interpreted alongside the methodological limitations. A number of studies had a relatively small sample size, with 13 studies recruiting less than 40 participants. This increases the possibility of type 2 statistical error in which significant associations remain undetected. Although the age ranged from 14 to 73, the greater part of studies centred around 20 to 50 years old with a predisposition towards males.

As previously noted, the participants who took part could be seen as a highly selected sample. There were high numbers of patients who declined to participate, but who were eligible, which may have been due to higher levels of avoidance and trauma. Participants were often selected by staff, allowing de-selection of those who were highly symptomatic or had known trauma histories to be excluded on the supposition that participating could be re-traumatising, distressing or contribute to deterioration in mental state. This sampling bias indicates a potential underestimation of PTSD rates and generates difficulties in generalising findings.

The studies reviewed were largely based on inpatient wards or patients who had been discharged from hospital into the community and their timing meant that participants may have not had long to experience hospital or may have under-reported in fear of delaying discharge. Shame, stigma and embarrassment may also have had an impact on reporting. In addition, psychosis has been cited as potentially reducing the accuracy of recall and memory (Mueser et al., 1998; Tarrier et al., 2005) as well as depression, mania, anxiety, distress, medication and sedation, and therefore may reduce the reported rates of PTSD. Other factors, such as desire to protect perpetrators (Della Femina, Yeager, & Lewis, 1990),

fear of others' responses to disclosure (Symonds, 1982) or reluctance to discuss adverse memories (Dill, Chu, Grob, & Eisen., 1991), may also impact on the rate of reporting.

Method variance, in terms of assessment tool, diagnosis inclusion and length of follow-up, may have impacted on the differing rates and conclusions. Many of the studies were cross-sectional and so the severity of psychosis prior to the research was unknown. The studies also focussed mainly on correlations rather than causal relationships. The use of self-report measures to define PTSD caseness may have reduced the accuracy of diagnosis although there is generally a good correlation between interview-based methods and self-report measures of PTSD (Davidson, Smith & Kudler, 1989). Pre-existing PTSD may have influenced psychosis-related and hospital-related PTSD symptoms, particularly given the high level of lifetime trauma. The use of the Impact of Events Scale (IES) can also be criticised for not including the hyperarousal element of PTSD.

Validity of the measurement of PTSD may be seen as an issue, as there is often other psychopathology present and PTSD symptoms were significantly correlated with anxiety and depression. This diagnostic overlap implies the same construct may be being measured. It is also difficult to separate PTSD symptoms from symptoms of psychosis (e.g., avoidance and numbing vs. negative symptoms) (McGorry et al., 1991) which could contribute to the results found.

### **Implications for Research**

Given the methodological limitations of the studies reviewed, a number of key areas can be seen as important areas for future investigation examining the traumatic effects of psychosis and hospitalisation. It is important to further establish the incidence rates of

psychosis-related and hospital-related PTSD and this should take the form of larger prospective studies with refined and comprehensive assessment tools with different sampling methods (e.g., random sampling). It is also important to establish this in different diagnostic groups, age groups (e.g., adolescent psychosis) and different treatment settings (e.g., community, acute wards, secure units or prisons).

The role of psychological factors, such as appraisals, attachment styles and coping strategies, in mediating PTSD symptoms is an area of importance, as an increased understanding of this may help inform interventions such as managing emotional distress (Kilcommons & Morrison, 2005).

A CBT programme has been devised for PTSD with patients with serious mental illness and has good clinical outcomes (Rosenberg, Mueser, Jankowski, Salyers & Acker, 2004). Further research is needed to aid the development and evaluation of treatment guidelines and intervention approaches for psychosis-related and hospital-related PTSD. These interventions could specifically help with coping and integrating experiences sooner to see whether this then leads to reduced self-stigma, better adherence to treatment, increased engagement and motivation to change, increased recovery, changes to their view of the problem (“insight”) and any effects on co-morbidity (e.g., substance use, depression and anxiety). This may also be effective at reducing other psychiatric symptoms in addition to PTSD, as proposed by an interactive model of PTSD and SMI (Mueser et al., 2002)

Length of exposure to traumatic events is related to the severity of PTSD symptoms (Horowitz, Weine & Jekel, 1995) and so a crucial population to investigate is those who have established illnesses, experience multiple admissions to hospital, have a prolonged recovery or who remain in long-stay settings such as rehabilitation or secure units. These

findings would also have implications for the process of hospital admission as it would allow strategies minimising the risk of trauma to be implemented.

### **Conclusion**

This systematic review aimed to critically review studies investigating PTSD symptoms associated with the experience of psychosis and hospitalisation and to firstly establish the incidence of psychosis-related and hospital-related PTSD. Many of these studies showed that patients experiencing and recovering from a psychotic episode have high levels of PTSD symptoms related to psychosis and treatment experiences, both soon after the event and many months later. These rates indicate the importance for clinicians to assess for PTSD symptoms in patients with psychosis in the community and in hospital. Regrettably only a minority reported they had ever been asked about traumatic hospital experiences (Cusack et al., 2003) despite trauma and PTSD being overrepresented among individuals with psychosis. A general lack of recognition of trauma and PTSD has been demonstrated in a number of studies (e.g., Mueser et al., 1998) and PTSD is not routinely assessed even when patients report a trauma history (Resnick, Bond, & Mueser, 2003). As long as trauma and PTSD are unrecognised, they cannot be addressed through treatment and may continue to have an adverse effect on both physical and mental health (Mueser, Rosenberg, Jankowski, Hambleb & Descamps, 2004).

This review then went on to consider how psychosis and hospitalisation relate to PTSD/PTSD symptoms and what factors moderate or mediate these symptoms. The existing research shows there are a number of potential external and internal events that can produce PTSD in psychosis, although the exact experience remains unknown. Despite the

subjective and empirical evidence of the traumatic nature of a psychotic episode, it continues to not qualify for the stressor criterion of PTSD, highlighting that diagnostic criteria is too restrictive, artificial and at risk of neglecting legitimate traumatic symptoms. This means that PTSD will continue to remain unrecognised.

There is a shortage of studies examining PTSD symptoms in relation to the experience of psychosis and hospital admission (Beattie et al., 2009). This endangers the potential to reduce distressing, traumatic, frightening and harmful aspects of psychotic experience and care, which could improve engagement, motivation, treatment compliance, insight, recovery and reduce stigma, co-morbidity, persecutory perceptions of treatment and psychotic symptoms.

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**Section Two: Research Paper**

**Trauma in relation to Psychosis and Hospital Experiences in Low and Medium Secure**

**Settings: The Role of Past Trauma, Attachment and Recovery Style**

**Paper Two Word Count: 5,850**

## **Abstract**

### **Introduction**

Research has shown the experience of psychosis and hospitalisation is distressing and may lead to the development of Post Traumatic Stress Disorder (PTSD). A major gap exists in our knowledge of why some develop PTSD and others do not and there is a need to better explore mediating/moderating factors. This study aimed to investigate the traumatic nature of psychosis and hospitalisation and their relationships with attachment and recovery styles in people with psychosis in a secure setting.

### **Method**

Using a cross-sectional design, 50 participants from medium and low-secure settings were interviewed to identify distressing experiences related to psychosis and hospitalisation. PTSD symptoms related to those experiences, past trauma, attachment and recovery styles were also assessed.

### **Results**

The overall incidence rate of psychosis and hospital-related PTSD was 30%. Twenty-four percent and 18% met criteria for psychosis-related and hospital-related PTSD, respectively. Severity of psychosis was associated with psychosis-related and hospital-related PTSD symptoms. The total sample experienced elevated levels of psychosis-related and hospital-related avoidance. The prevalence of previous trauma was high. Pre-morbid trauma and recovery style were not related to psychosis-related or hospital-related PTSD symptoms. The PTSD group had elevated levels of attachment anxiety.

Overall severity of psychotic symptoms and attachment anxiety significantly predicted psychosis-related PTSD symptoms and attachment anxiety significantly predicted hospital-related PTSD symptoms.

### **Discussion**

The results suggest psychosis and hospitalisation are distressing experiences and there may be a specific subset of PTSD that is associated with psychosis and hospitalisation, raising important issues for services and implications for interventions.

Keywords: Schizophrenia, SMI, PTSD, long-stay, in-patient, coping-style

## Introduction

Research has consistently found that the experience of psychosis and hospitalisation is highly distressing.<sup>1,2</sup> Over the past twenty years psychosis and hospitalisation have started to be recognised as traumatic events that could lead to the onset, or maintenance, of PTSD.<sup>3</sup> PTSD has clear clinical implications as it may heighten stress leading to more severe and chronic psychotic symptoms and higher rates of service use,<sup>4</sup> drug use,<sup>4</sup> stigma, depression and suicide,<sup>5</sup> impact of care,<sup>6</sup> prolonged distress<sup>7</sup> and reduced recovery rates.<sup>8</sup> Individuals may be further traumatised by an increased severity of psychosis, by increased use of services and coercive measures (e.g., restraint) which may equally serve to exacerbate and maintain psychotic experiences.

Markedly different rates of post-psychotic PTSD have been found, ranging from 11% to 67%.<sup>9,10</sup> These differences may be attributed to the different methodologies, assessment measures or sampling used. The studies exclusively focussed on first-episode psychosis or psychosis with an acute inpatient stay with a maximum follow-up of one year to the detriment of other populations. A rehabilitation population (i.e., medium and low-secure units) is a neglected group in the area of trauma research yet may have a heightened risk of PTSD due a longer course of illness and inpatient stay.

Early life trauma, and in particular abuse, is a risk factor for the development of PTSD to subsequent traumas and there is a substantial literature supporting the role of increased risk of future victimisation.<sup>11</sup> Moreover, a meta-analysis indicated existing adjustment problems, family history of psychopathology, emotional response and perceived degree of threat were risk factors for the development of PTSD.<sup>12</sup> A major gap still exists in our

knowledge of why some develop PTSD and others do not and there is a need to better explore additional factors that may mediate or moderate this risk.

According to attachment theory, earlier interpersonal experiences influence the development of mental representations about the self and others and give methods of regulating distress in adulthood.<sup>13</sup> These working models can be classified into different attachment styles: secure, avoidant and anxious-ambivalent which are theorised as being stable over time.<sup>14</sup> They can be revised as a result of significant traumatic experiences and so an initial secure attachment in childhood can make transition to an insecure attachment.<sup>15</sup> Insecure attachments have associations with a wide range of psychiatric disorders,<sup>16</sup> can increase vulnerability to psychopathology, including PTSD.<sup>17,18,19</sup> In hospital, staff can act as attachment figures with the potential to revise working models<sup>20</sup> but this may be hindered by attachment-related interpersonal problems impacting on staff-patient relationships. This is illustrated in Beattie et al's study<sup>21</sup> which found poorer relationships with service providers (e.g., poor care, negative relationships) predicted the development of post-psychotic PTSD symptoms.

An individual's recovery from psychosis has also been associated with secure attachments.<sup>22</sup> Individuals with secure attachment styles are hypothesised to have an internal secure base which enables them to integrate and process their experiences of psychosis.<sup>23</sup> Two recovery styles have been conceptualised: 'sealing-over' and 'integration'.<sup>24</sup> Within integration, individuals use a flexible thinking style and relate and incorporate their illness experience to their everyday experience. Alternatively within sealing over, individuals appraise psychosis as negative and threatening leading to isolating the experience and avoiding recall. Jackson and colleagues<sup>25</sup> found recovery style was linked to the severity of PTSD symptoms with 'sealers' more likely to adopt cognitive

strategies to avoid intrusions. A further study found those with post-psychotic PTSD were more likely to integrate their experiences of psychosis,<sup>3</sup> indicating individuals experienced traumatic memories of their experiences but also experienced a desire to understand and integrate these experiences. Integration may therefore be seen as protective against the development of PTSD because it may increase understanding, help-seeking and acceptance of treatment therefore impacting on recovery and outcome.

This present study aimed to make a contribution to this area by investigating the potentially traumatic nature of psychosis and hospitalisation and their relationships with attachment and recovery styles in people with psychosis in low and medium secure settings. Using a cross-sectional design, the aim was to establish the incidence of psychosis-related and hospital-related PTSD symptoms and to test a number of specific predictions: (i) that there would be positive correlations between a pre-morbid trauma history and psychosis-related and hospital-related PTSD symptoms; (ii) there would be positive correlations between an insecure attachment style and psychosis-related and hospital-related PTSD symptoms; (iii) there would be positive correlations between a sealing-over recovery style and psychosis-related and hospital-related PTSD symptoms; and (iv) that if there are any associations between a pre-morbid trauma history and PTSD symptoms that these would be mediated by attachment and recovery style.

## **Method**

### **Participants**

Participants were recruited from 10 low-secure and 15 medium-secure wards from three adult mental health sites in the North West of England, UK. Participants all met ICD-10 criteria<sup>26</sup> for schizophrenia, schizoaffective disorder or psychotic bipolar disorder, were aged between 18 and 65 years and had been inpatients for at least one month. Diagnosis was ascertained via discussion with care teams and verified by case-note review. Patients were excluded if they were unable to give informed consent. One hundred and fifty seven patients were invited to take part in the study. Twenty-six patients, who initially appeared to meet the inclusion criteria for participation and wished to take part, were identified as inappropriate for the study by their care team due to mental state or other clinical reasons. Eleven potential patients, who initially expressed an interest, declined to be interviewed. A further two patients were unable to complete the full interview due to concentration difficulties. Fifty patients agreed to participate, gave informed consent and were interviewed giving a 32% rate of uptake.

### **Measures**

Demographic and clinical information were collected from case notes with participant's consent (Appendix G). The research interviews consisted of a clinical interview and questionnaires administered as a structured interview.

### **The Positive and Negative Syndrome Scale (Appendix H).**

The Positive and Negative Syndrome Scale (PANSS)<sup>27</sup> is a clinical interview used to assess psychopathology and the extent to which their symptoms affected their affect, thoughts, social relations, personal functions and behaviour. Psychometric studies have reported good inter-rater reliability and satisfactory internal consistency, construct validity, and concurrent validity in relation to other measures of psychopathology in samples of people with psychosis.<sup>28</sup> The researcher was trained in the PANSS, attended regular group supervision and had a number of PANSS blind-rated to ensure continued reliability. All alphas were above .66 and reliability analysis showed high levels of inter-rater reliability were maintained throughout ( $r > .80$ ).

### **The Impact of Event Scale – Revised (Appendix I).**

The Impact of Events Scale – Revised (IES-R) is a 22-item questionnaire used to assess levels of current PTSD symptoms (re-experiencing, avoidance and hyperarousal symptoms) in relation to a specific traumatic stressor.<sup>29</sup> It has remained unclear whether the experience of psychosis can meet criterion A<sup>1</sup> of the DSM-IV.<sup>30,31</sup> In this study, participants were asked to complete this measure in relation to their most distressing psychotic and hospital experience and PTSD symptoms were then set out by criterion A<sup>2</sup>, B, C and D. A cut-off of 33 for a full scale score is recommended to provide optimum diagnostic accuracy when used as a categorical measure.<sup>32</sup> The IES-R has been shown to have strong internal consistency and test-retest reliability with people with psychosis.<sup>29</sup> All alphas were above .70.

### **Trauma History Questionnaire (Appendix J).**

The Trauma History Questionnaire (THQ) is a 24-item questionnaire used to measure lifetime exposure to traumatic events and was administered as a structured interview.<sup>33</sup> This questionnaire examines a range of traumatic events, linked to the DSM-IV criteria,<sup>31</sup> and covers three areas: crime-related events, general disaster and trauma and unwanted physical and sexual experiences. The THQ has high inter-rater reliability and moderate to high test-retest ability in individuals diagnosed as having a severe mental illness.<sup>34</sup>

### **Psychiatric Experiences Questionnaire (Appendix K).**

The Psychiatric Experiences Questionnaire (PEQ) is a 26-item questionnaire used to measure exposure, frequency and distress related to traumatic events occurring within psychiatric settings.<sup>35</sup> No psychometric properties for the PEQ have been published.

### **Psychosis Attachment Measure (Appendix L).**

The Psychosis Attachment Measure (PAM) is a 16-item questionnaire used to measure attachment avoidance and anxiety.<sup>36</sup> The PAM has been shown to have good psychometric properties. Alphas were .81 for anxiety and .60 for avoidance.<sup>37</sup>

## **Recovery Style Questionnaire (Appendix M).**

The 39-item Recovery Style Questionnaire (RSQ) is a self-report measure of McGlashan's<sup>38</sup> 'integration' versus 'sealing-over' styles of adaption to psychotic illness. Its psychometric properties have been demonstrated in a number of studies.<sup>39</sup> Alphas were .78 for integration and .60 for sealing-over.

### **Procedure**

Following approval by the appropriate ethics committees, the research protocol was disseminated to secure mental health services in the North West of England, UK. Patients who wished to take part were given a patient information sheet (Appendix D). With patient consent, case-notes were reviewed to ensure inclusion/exclusion criteria were met and care teams were notified the patient would like to take part. Demographic information was obtained and verified by case-note review (Appendix G). Once written consent to take part (Appendix E) and care team approval had been provided (Appendix F), the researcher administered the measures and participants received £5 for taking part. Data obtained from the measures was transferred to a statistical programme for analysis.

### **Statistical Analysis**

Data were analysed using SPSS 16.0 for Windows. Descriptive statistics (proportions, mean, and standard deviation) were obtained and skewness and kurtosis were calculated in order to check if the variables were normally distributed. Those deviating from normality

(childhood trauma, adulthood trauma, combined pre-morbid trauma and hospital experiences) were transformed using log transformations which corrected the scores. Using SPSS, associations were tested using Pearson's correlations and independent t-tests to analyse the relationship between variables and PTSD symptoms. The Pearson's correlational analysis carried out on recovery style was quasi-normal because the variable was restrictive. Multiple regression analyses were used to determine if variables could be used to predict PTSD symptoms.

## **Results**

### **Participant Characteristics**

The characteristics of the sample are summarised in Table 1. Twenty-eight participants (56%) were inpatients in a medium-secure setting and 22 (44%) in a low-secure setting. None of the participants had a case note recorded diagnosis of PTSD. Forty-nine participants (98%) were detained under the Mental Health Act 1983. Twenty-one participants (42%) were on a Section 37/41, 16 (32%) on a Section 3, seven (14%) on a Section 47/49, five (10%) on a Section 37 and one (2%) was informal. Seventeen (34%) participants therefore had no recorded index offence. Seventeen (34%) had an index offence involving serious violence or damage (e.g., armed robbery), six (12%) for homicide and related grave offences (e.g., manslaughter), five (10%) for miscellaneous other offences (e.g., affray), four (8%) for lesser offences involving violence or damage (e.g., actual bodily harm) and one (2%) serious sexual offence.

Table 1. Demographic and Diagnostic Characteristics of Study Sample.

	N	%
Gender		
Female	10	20
Male	40	80
Ethnicity		
Black African	3	4
Black Caribbean	3	6
Indian	1	2
Mixed Race	1	2
White British	43	86
Marital Status		
Divorced	7	14
In a Relationship	3	6
Married	1	2
Separated	1	2
Single	36	72
Widowed	2	4
Pre-morbid Socio Economic Status		
Higher Managerial and Professional	0	0
Lower Managerial and Professional (e.g., nurse)	3	6
Intermediate (e.g., computer engineer)	3	6
Lower Supervisory and Technical (e.g., mechanic)	3	6
Semi-Routine (e.g., sales assistant)	17	34
Routine (e.g., labourer)	12	24
Never Worked	12	24
Diagnosis		
Bipolar with Psychotic Features	3	6
Schizoaffective Disorder	5	10
Schizophrenia	42	84
Co-morbidity		
Acquired Brain Injury	2	4
ADHD	1	2
Alcohol Abuse	7	14
Anxiety	1	2
Asperger's Syndrome	2	4
de Clérambault's syndrome	1	2
Depression	10	20
Eating Disorder	1	2
Substance Abuse	15	30
Medication		
Antidepressants	19	38
Antipsychotics	50	100
Anxiolytics	9	18
Mood Stabiliser	16	32
Physical Health Medication	35	70
Side-effect Medication	25	50
	<b>Mean</b>	<b>SD</b>
Age	37.66 years	11.16 years
Age of Onset	22.36 years	9.12 years
Age of First Admission	25.34 years	7.87 years
Time since First Admission	12.1 years	8.33 years
Duration of Current Admission	27.43 months	22.44 months
Number of Admissions	6.28	5.53

## PTSD Symptoms and Psychotic Symptoms

The majority of participants ( $n=41$ , 82%) identified positive psychotic symptoms as the most distressing symptom they had experienced. Auditory hallucinations ( $n=17$ , 34%) were the most commonly named distressing symptom, followed by paranoid/persecutory beliefs ( $n=12$ , 24%) and then unusual beliefs ( $n=6$ , 12%). Three participants (6%) subjectively did not identify any psychotic symptom as distressing.

Scores on the IES-R revealed a moderate level of avoidance for the sample ( $M=1.20$ ,  $SD=0.90$ ) in comparison to low levels of intrusions ( $M=0.75$ ,  $SD=0.76$ ) and hyperarousal ( $M=0.84$ ,  $SD=0.87$ ). A main aim of the study was to establish the incidence of psychosis-related PTSD and so, using a cut-off of 33 or above for 'caseness' and excluding the need to fulfil Criteria A, 12 participants (24%) met criteria for a PTSD diagnosis with a psychotic symptom as the traumatic event ( $M$  total IES-R=20.6,  $SD=16.19$ ).

Psychosis-related PTSD symptoms were not related to age, age of onset, age of first admission, gender, number of admissions or setting (low vs. medium-secure). A significant negative correlation was found between psychosis-related PTSD symptoms and length of current admission ( $r=-.301$ ,  $p=.034$ ) indicating that a longer admission was associated with fewer PTSD symptoms.

Psychosis-related PTSD symptoms were positively correlated with the total PANSS score ( $r=.484$ ,  $p<.001$ ), total Positive symptoms ( $r=.435$ ,  $p=.002$ ) and total General Symptoms ( $r=.476$ ,  $p<.001$ ) indicating that those who were experiencing more psychopathology also experience more PTSD symptoms.

## PTSD symptoms and Hospital Experiences

The majority of participants ( $n=49$ , 98%) reported experiencing at least one negative experience in hospital. For the sample, a total of 5817 experiences were reported ( $M=116.34$ ,  $SD=156.5$ ). Sixteen (32%) had felt ‘quite a bit’ to ‘extremely’ unsafe in hospital, 20 (40%) had felt ‘quite a bit’ to ‘extremely’ helpless in hospital, 17 (34%) had felt ‘quite a bit’ to ‘extremely’ frightened in hospital and 22 (44%) had felt ‘quite a bit’ to ‘extremely’ upset in hospital. Thirty (60%) reported that there was a hospital that they would never like to return to. Nine (18%) had been asked about these experiences before, 19 (38%) had told staff about negative experiences in hospital and 34 (68%) felt staff would be sympathetic if they told them. Twenty-five (50%) reported their most distressing hospital experience had impacted on their mental health and 22 (44%) reported that it had made them reluctant to engage in mental health treatment.

Seclusion ( $n=5$ , 10%) was the most commonly named distressing hospital experience, followed by restraint ( $n=4$ , 8%), being admitted to hospital ( $n=4$ , 8%), physical assault from a patient ( $n=4$ , 8%) and being forced to take medication ( $n=4$ , 8%). Eight (16%) participants reported hospital experiences that were not covered in the PEQ (e.g., witnessing a suicide attempt). Nine participants (18%) reported no hospital experiences as distressing.

Scores on the IES-R revealed a moderate level of avoidance for the sample ( $M=1.02$ ,  $SD=0.94$ ) in comparison to low levels of intrusions ( $M=0.56$ ,  $SD=0.71$ ) and hyperarousal ( $M=0.57$ ,  $SD=0.68$ ). A main aim of the study was to establish the incidence of hospital-related PTSD. Nine participants (18%) met criteria for a PTSD diagnosis with a hospital experience as the traumatic event ( $M=16.08$ ,  $SD=15.67$ ).

Hospital-related PTSD symptoms were not related to age, age of onset, age of first admission, gender, number of admissions, length of current admission or setting.

Significant positive correlations were found between hospital-related PTSD symptoms and total PANSS score ( $r=.385, p=.006$ ), general symptoms ( $r=.415, p=.003$ ) and the total number of traumatic hospital experiences ( $r=.307, p=.03$ ).

### **PTSD Symptoms and Psychosis/Hospital Experiences**

Six participants (12%) met PTSD criteria for both psychosis and hospital experiences. A significant correlation ( $r=.646, p<.001$ ) was found between psychosis-related PTSD and hospital-related PTSD scores. The overall incidence rate of psychosis-related and hospital-related PTSD was 30% ( $n=15$ ).

### **Childhood, Adulthood and Lifetime Trauma**

The prevalence of trauma was high (94%,  $n=47$ ) with a total of 1095 childhood and adulthood traumas reported ( $M$  traumas=21.9,  $SD=25.78$ ). Of the sample, 74% participants ( $n=37$ ) had experienced trauma both in childhood and adulthood; 12% ( $n=6$ ) in childhood only and 8% ( $n=4$ ) in adulthood only. Childhood trauma and adulthood trauma were positively correlated ( $r=.304, p=.032$ ).

### **Childhood, Adulthood and Lifetime Trauma and Psychosis-Related PTSD**

Contrary to the hypotheses, no correlations were found between total trauma, childhood

trauma or adulthood trauma with psychosis-related PTSD symptoms ( $r=.190, p=.186$ ;  $r=.195, p=.175$ ;  $r=.206, p=.152$ ) avoidance ( $r=.183, p=.204$ ;  $r=.180, p=.210$ ;  $r=.212, p=.139$ ), intrusions ( $r=.225, p=.116$ ;  $r=.218, p=.128$ ;  $r=.226, p=.115$ ) or hyperarousal ( $r=.077, p=.596$ ;  $r=.103, p=.478$ ;  $r=.084, p=.563$ ).

No correlations were found between crime-related events or unwanted physical and sexual experiences with intrusions, avoidance, hyperarousal or psychosis-related PTSD symptoms. A positive correlation was found between general disaster and trauma with intrusions ( $r=.317, p=.025$ ), avoidance ( $r=.294, p=.038$ ) and psychosis-related PTSD scores ( $r=.316, p=.026$ ).

### **Childhood, Adulthood and Lifetime Trauma and Hospital-Related PTSD**

A positive correlation was found between childhood trauma and the number of hospital experiences ( $r=.429, p=.002$ ). Contrary to the hypotheses, no correlations were found between childhood trauma with hospital-related PTSD symptoms ( $r=.217, p=.130$ ), avoidance ( $r=.135, p=.350$ ), intrusions ( $r=.246, p=.085$ ) or hyperarousal ( $r=.243, p=.089$ ). However, in alignment with the hypotheses, a positive correlation was found between adulthood trauma ( $r=.298, p=.036$ ) with hospital-related PTSD symptoms and hyperarousal ( $r=.377, p=.007$ ) indicating that as the incidence of adulthood trauma increased, hospital-related PTSD symptoms and hyperarousal also increased. A positive correlation was also found between total trauma and hyperarousal ( $r=.283, p=.046$ ).

No significant correlations were found between crime-related events with intrusions, avoidance, hyperarousal or hospital-related PTSD symptoms. Positive correlations were found between general disaster and trauma and intrusions ( $r=.343, p=.015$ ), hyperarousal

( $r=.385, p=.006$ ) and hospital-related PTSD symptoms ( $r=.312, p=.028$ ) and between unwanted physical and sexual experiences and intrusions ( $r=.311, p=.028$ ), hyperarousal ( $r=.325, p=.021$ ), avoidance ( $r=.339, p=.016$ ) and hospital-related PTSD symptoms ( $r=.360, p=.010$ ).

### Attachment Style

Scores on the PAM revealed a high level of attachment avoidance in the sample ( $M=10.4, SD=3.83$ ) in comparison to attachment anxiety ( $M=5.28, SD=4.63$ ). The PTSD groups had increased mean attachment avoidance and attachment anxiety in comparison to the non-PTSD group (see Table 2).

Table 2. Mean Attachment Avoidance and Anxiety for the PTSD/Non PTSD Groups.

	Avoidance				Anxiety			
	M	SD	<i>t</i>	<i>df</i>	M	SD	<i>t</i>	<i>df</i>
Psychosis-Related PTSD	11.61	3.78	-1.27	48	8.04	4.69	-2.49*	48
Non-PTSD	10.01	3.81			4.41	4.31		
Hospital-Related PTSD	11.17	4.20			9.68	3.82		
Non- PTSD	10.23	3.78	-.66	48	4.32	4.25	-3.48**	48

\*  $p<0.05$  \*\* $p<.001$

Attachment anxiety scores were negatively correlated with length of admission ( $r=-.287, p=.043$ ), indicating that as the length of admission increased, the level of attachment anxiety decreased. No other correlations were found between attachment anxiety or avoidance with age, age of onset, age of first admission, gender, number of admissions or setting.

In accordance with the hypotheses, a significant correlation was found between attachment anxiety and psychosis-related intrusions ( $r=.440, p=.001$ ), avoidance ( $r=.563, p<.001$ ), hyperarousal ( $r=.462, p=.001$ ) and PTSD symptoms ( $r=.563, p<.001$ ) and hospital-related intrusions ( $r=.564, p<.001$ ), avoidance ( $r=.449, p=.001$ ), hyperarousal ( $r=.471, p=.001$ ) and PTSD symptoms ( $r=.542, p<.001$ ). The differences between attachment anxiety in the psychosis-related/hospital-related PTSD groups and non-PTSD groups was significant ( $t(48)=-3.48, p=.001$  and  $t(48)=-2.49, p=.016$ , respectively).

However no correlations were found between attachment avoidance and psychosis-related PTSD symptoms or hospital-related PTSD symptoms ( $p>.05$ ).

Anxiety scores were positively correlated with positive symptoms ( $r=.427, p=.002$ ), general symptoms ( $r=.363, p=.01$ ) and total PANSS scores ( $r=.359, p=.01$ ). Avoidance scores were positively correlated with general symptoms ( $r=.418, p=.02$ ) and total PANSS scores ( $r=.345, p=.014$ ).

Anxiety scores were positively correlated with childhood trauma ( $r=.296, p=.037$ ), adulthood trauma ( $r=.280, p=.049$ ), general trauma ( $r=.316, p=.026$ ), unwanted physical and sexual experiences ( $r=.308, p=.03$ ), total number of traumas ( $r=.316, p=.025$ ).

Avoidance scores were not correlated with trauma, childhood trauma, adulthood trauma, type of trauma or number of hospital experiences.

## **Recovery Style**

According to the scoring criteria, 10 participants (20%) were considered to have a ‘sealing-over’ recovery style and the remaining 40 (80%) were classified as ‘integrators’.<sup>40</sup>

No correlations were found between recovery style with age, age of onset, age of first admission, gender, number of admissions, length of current admission or setting.

Twenty percent ( $n=2$ ) of the sealers had hospital-related PTSD in comparison to 17.5% ( $n=7$ ) of the integrators. Ten percent ( $n=1$ ) of the sealers had psychosis-related PTSD in comparison to 23% ( $n=9$ ) of the integrators. A significant positive correlation was found between recovery style with negative symptoms ( $r=.439, p=.001$ ) showing that an increase in negative symptoms also resulted in an increase in sealing over.

Contrary to the hypothesis, no correlations were found between recovery style and psychosis-related or hospital-related PTSD symptoms ( $r=-.087, p=.546; r=.113, p=.433$ ). No correlations were found in relation to recovery style and psychosis-related intrusions, avoidance or hyperarousal or hospital-related intrusions, avoidance or hyperarousal.

Inspection of the means revealed that integrators had higher psychosis-related avoidance, intrusions, hyperarousal and psychosis-related PTSD scores than sealers. Furthermore, inspection of the means also revealed sealers had higher hospital-related avoidance, intrusions, hyperarousal and hospital-related PTSD scores than integrators (see Table 3).

Table 3. PTSD Scores for Sealers and Integrators.

	Sealers		Integrators		<i>t</i>	<i>df</i>
	M	SD	M	SD		
Psychosis-Related PTSD Total	17.8	12.81	21.30	17.00	.60	48
Psychosis-Related Avoidance	1.01	0.72	1.24	0.94	.72	48
Psychosis-Related Intrusions	0.59	0.53	0.79	0.81	.74	48
Psychosis-Related Hyperarousal	0.83	0.75	0.84	0.90	.03	48
Hospital-Related PTSD Total	19.60	12.56	15.20	16.37	-.79	48
Hospital-Related Avoidance	1.29	0.92	0.96	0.95	-.99	48
Hospital-Related Intrusions	0.69	0.49	0.53	0.75	-.63	48
Hospital-Related Hyperarousal	0.63	0.50	0.55	0.72	-.33	48

A significant positive correlation was found between recovery style and unwanted physical and sexual experiences ( $r=.282, p=.047$ ) indicating that an increase in abusive experiences also resulted in an increase in sealing over. No correlations were found between recovery style and childhood trauma, adulthood trauma, total trauma, crime-related trauma or general trauma.

No correlations were found between recovery style and total number of hospital experiences, attachment avoidance or attachment anxiety.

### **Regression Analyses**

The data met the assumptions for a regression model (e.g. non-zero variance, sample size, no perfect multicollinearity) and so multiple regression analyses were used to determine if variables could be used to predict PTSD symptoms. Using the forward stepwise method, the variables of total trauma, total PANSS scores, total hospital experiences, attachment anxiety, attachment avoidance and recovery style were entered into two multiple regression analyses with psychosis-related and hospital-related PTSD symptoms as the dependent variables. Length of current admission was also entered for the psychosis-related analysis on the basis of previous correlational analyses.

A significant model emerged for psychosis-related PTSD symptoms:  $F(2,47)=16.22$ ,  $p<.001$ . This model explained 38.3% of the variance (Adjusted  $R^2=.383$ ). Length of admission, total trauma, total hospital experiences, attachment avoidance and recovery style were not significant predictors, but total PANSS score and attachment anxiety were (see Table 4).

Table 4. Significant Predictors of Psychosis-related PTSD Symptoms.

Variable	B	SE B	B
Attachment Anxiety	1.56	.42	.45**
Total PANSS	0.372	.138	.32*

\* $p < .01$  \*\* $p < .001$

A significant model also emerged for hospital-related PTSD symptoms:  $F(1,48=20.00)$ ,  $p < .001$ . This model explained 27.9% of the variance (Adjusted  $R^2 = .279$ ). Only attachment anxiety was a significant predictor (see Table 5).

Table 5. Significant Predictors of Hospital-related PTSD Symptoms.

Variable	B	SE B	B
Attachment Anxiety	1.83	.41	.54**

\*\* $p < .001$

Contrary to the hypotheses, a pre-morbid trauma history was not associated with psychosis-related or hospital-related PTSD symptoms and so further analysis was not warranted.\*

## Discussion

This study aimed to establish the incidence of psychosis-related and hospital-related PTSD in a long-stay secure setting and to examine associations with potential predictive factors, such as trauma history, attachment and recovery style, to help develop an understanding of why some people experience traumatic responses to symptoms of psychosis and treatment. The experience of psychosis and hospitalisation was found to be distressing, which is consistent across studies.<sup>1,2</sup> The study found nearly one-third met PTSD caseness for combined psychosis and hospital experiences, which corresponds with previous studies' prevalence rates. More participants met PTSD caseness for psychosis rather than hospitalisation paralleling reports that the experience of psychosis is more distressing.<sup>3,9,21</sup> Those with increased severity of psychosis were more likely to experience hospital-related PTSD symptoms. This may be explained by the relationship between increased psychopathology and the increased likelihood of coercive measures exacerbated by psychotic attributions and the reduced ability to rationalise and understand therefore cumulating in an increase in distress. Levels of avoidance were also elevated in the sample, as shown in other studies,<sup>1,3,25</sup> indicating an increase in PTSD symptoms even for those under the PTSD threshold.

Psychosis was described as distressing and the most distressing symptoms were reported as auditory hallucinations, paranoid/persecutory beliefs and unusual beliefs which is consistent with previous research.<sup>3,21,41</sup> One-quarter met psychosis-related PTSD caseness and the sample as a whole experienced a heightened level of psychosis-related avoidance. A longer admission was associated with fewer psychosis-related PTSD symptoms, which may be on account of increased treatment or desensitisation over time. Those who had

greater psychopathology were more likely to experience psychosis-related PTSD symptoms, consistent with Meyer and colleagues.<sup>9</sup>

The majority of participants had experienced at least one negative experience in hospital and seclusion, restraint, being admitted to hospital, experiencing a physical assault and being forced to take medication were reported as most distressing, consistent with previous research.<sup>35</sup> Over a third of participants reported feeling unsafe, helpless, frightened and upset by these experiences. Nearly one-fifth met hospital-related PTSD caseness and the sample as a whole experienced a heightened level of hospital-related avoidance.

No differences were found with age, age of onset, age of first admission, length of admission or number of admissions in accordance with previous studies<sup>1,10,25</sup> providing substantiation that level of exposure, therapeutic relationships, understanding and attributions impact on distress.

The prevalence of previous trauma was high with most participants reporting at least one experience. This is in agreement with consistent research findings that people with psychosis have a higher incidence of trauma.<sup>42</sup> Three-quarters of participants had experienced trauma in both childhood and adulthood showing potential support for the role of re-traumatisation with the development of psychosis, both in terms of psychosis as a traumatic event and re-enacting trauma in content of symptoms.

Unexpectedly no relationships were found between pre-morbid traumas with psychosis-related or hospital-related PTSD symptoms. Only a positive relationship was found between adulthood trauma with hospital-related hyperarousal and PTSD symptoms. In fact, a number of participants spoke of previous traumas helping them cope with psychosis and hospital experiences, which is in stark contrast to reports that a trauma history is a significant predictor of PTSD.<sup>43</sup> Previous trauma has been found to be significantly

associated with levels of psychosis-related PTSD symptoms and hospital-related PTSD symptoms.<sup>1,43</sup> This present study, along with others,<sup>3,5,44</sup> does not support this. This may be due to familiarity of the experiences, expectations of similar experiences occurring, successful use of coping strategies, duration of treatment or desensitisation over time.

Increased childhood traumas were associated with a younger age of onset and an increased number of hospital experiences. Experiencing general disaster and trauma was found to be linked to psychosis-related intrusions, avoidance and total PTSD symptoms and experiencing general disaster and trauma or unwanted physical and sexual experiences with hospital-related PTSD symptoms, pointing towards a role of re-enactment in experiences.

In accordance with the hypotheses, the PTSD group had elevated levels of attachment anxiety. No relationship was found with attachment avoidance. Overall symptom severity and attachment anxiety significantly predicted psychosis-related PTSD symptoms and attachment anxiety significantly predicted hospital-related PTSD symptoms. Studies have found that attachment anxiety is more of an issue than avoidance in psychological distress and the occurrence of PTSD,<sup>45</sup> perhaps interfering with coping and exacerbating emotional problems and psychopathology.<sup>46</sup> Although this may indicate that those with higher attachment avoidance are less likely to report distress.

In opposition to the hypotheses, a sealing-over recovery style was not related to psychosis-related or hospital-related PTSD symptoms. This finding is in alliance with Jackson and colleagues who also found no difference between the two recovery styles and PTSD.<sup>25</sup> Sealers did have more negative symptoms and unwanted sexual and physical experiences than integrators and experienced significantly more negative hospital experiences, illustrating the adaptive nature of sealing over. Interestingly, integrators had higher psychosis-related avoidance, intrusions, hyperarousal and psychosis-related PTSD

scores. This supports Mueser and colleagues<sup>3</sup> who found their PTSD group were more likely to integrate their experiences of psychosis rather than seal-over.

## **Limitations**

The study's major limitation is the selective nature of the sample leading to an over-representation of those with lower trauma histories, integrating recovery styles, stable symptomatology and less distress. This bias is inherent in research in this population and may have produced an underestimate of the actual PTSD rates.

The sample size was small, limiting statistical power and the possibility of type 2 statistical error, which may explain why trauma was found to be unrelated to psychotic or PTSD symptoms. Further research should endeavour to make these comparisons by using a larger sample. The large number of correlations may have led to type 1 statistical error.

The cross-sectional study design limits both the conclusions that can be made about causal relationships and the understanding of the longitudinal links between PTSD with trauma, attachment and recovery styles. A single time-point may have overlooked delayed-onset or remitted PTSD cases.

Retrospective subjective reports have limitations and responses may have been biased due to distress, self-stigma, shame, elation, depression, impaired reality testing, delusional symptoms or 'sealing over'. Medication may have impacted on memory, attention and concentration or masked anxiety/arousal symptoms.

The IES-R is not a diagnostic tool and so an interview-based measure could have been used to improve diagnostic accuracy. Diagnoses were verified by care team and case-note review, which only confers a degree of certainty regarding diagnosis and so using a

diagnostic interview to further confirm this and establish any co-morbidity would have been preferable.

The study was able to successfully differentiate psychosis-related and hospital-related traumatisation, which previous studies found difficult. Some participants reported multiple psychotic and hospital experiences as distressing and it would have been advantageous to assess these for PTSD separately. PTSD symptoms may have been influenced by previous traumatic events but these were not measured.

### **Clinical Implications**

The study supports findings that experiences of psychosis and hospitalisation are related to PTSD symptoms and that trauma and PTSD are more prevalent in this population. Currently psychosis does not qualify for the stressor criterion of PTSD, but it has been found to repeatedly hold most of the qualities of events that lead to this disorder. It appears that diagnostic criteria are too restrictive leading to PTSD symptoms being overlooked.<sup>47</sup> It is recommended that there is a move away from the over-simplified model that only an objective event leads to PTSD and that the role of cognitive mediation and appraisals of experiences should be incorporated.<sup>25</sup>

PTSD is commonly overlooked due to the similarity of presentation in PTSD and psychosis, diagnostic overshadowing and reluctance to disclose. This study found 30% met caseness yet none had a diagnosis of PTSD illustrating the continual under-reporting of trauma and under-diagnosis of PTSD and emphasises the continued importance of regular and routine assessment of trauma history and PTSD.

Many reported hospital experiences had impacted on their mental health and engagement with treatment and it may be helpful for patients to have a post-incident debrief, as staff do, to help minimise the impact of experiences. A range of negative experiences were reported, including bullying, racism and sexual/physical assaults from staff. This is a disturbing discovery and prevalence rates of negative hospital experiences with a larger sample should be established. Preventing exposure is primary and strategies minimising the use of potentially harmful experiences (e.g., intensive nursing rather than seclusion, improved staff training), enhancing environments (e.g., smaller wards) may help to ensure that services are most sensitive to the potentially adverse effects of being in hospital. Furthermore, by providing a safe and therapeutic hospital environment, improvements in individual's recovery and attachment styles may be made.

No gender differences were found in the study, despite research highlighting re-enactment of abuse as a significant issue for females in mental health services. This study suggests that males experienced comparable levels of trauma suggesting the need for equal awareness and further research.

The study indicates that there may be a specific subset of PTSD associated with psychosis and hospitalisation. Larger prospective studies at varying stages of illness are needed to gain an understanding of how psychosis-related and hospital-related PTSD impacts on the prognosis of psychosis and how improved assessment and treatment approaches may lead to better clinical outcomes (e.g., integration, self-esteem, engagement, insight and compliance). The effectiveness of cognitive-behavioural therapy (CBT) in treating PTSD in psychosis has been shown<sup>48</sup> but is far from established particularly as individuals with psychosis have historically been excluded from PTSD studies.

Randomised-control trials for CBT for psychosis-related and hospital-related PTSD, with

specific strategies targeting maladaptive affect regulation related to insecure attachment styles (e.g. targeting over-reactivity in attachment anxiety) are needed to determine the effectiveness of the treatment and whether prevention/management of secondary morbidity influences outcomes. Sealing-over may be adaptive in some cases and this implies that interventions encouraging integration may not always be helpful. Psychological interventions are particularly important given patients with trauma-related psychotic symptoms may be treatment resistant to pharmacological interventions and case management, but may respond well to CBT.<sup>49</sup> Economic cost-analyses would also be beneficial to determine the utility of such targeted interventions, particularly as mental health services and infrastructure have experienced budget cuts in recent times.

Further research is needed into the subjective factors that personalise then trauma during psychosis and hospitalisation such as attributions, appraisals and meta-cognitions to see if they could mediate psychological responses and this ideally would be done prospectively to test the relationship between these variables and PTSD over time. It is also important to establish prevalence rates of psychosis-related and hospital-related PTSD in different diagnostic groups, age groups (e.g., adolescent psychosis) and different treatment settings (e.g., treatment in the community).

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**Section Three: Critical Review**

**Paper Three Word Count: 6,219**

## Introduction

This study is a valuable contribution to the PTSD and psychosis literature, particularly as this is one of few studies examining the incidence of psychosis-related and hospital-related PTSD symptoms in a long-stay setting. Prior research has focussed on those experiencing a first-episode of psychosis or those with a diagnosis of psychosis and who were recently discharged from an acute inpatient stay. Some studies were prospective, but follow-ups did not exceed one year post-discharge. Following a review of the literature, no studies to date have investigated psychosis-related or hospital-related PTSD in medium or low secure settings, despite this population enduring a longer course of illness and inpatient stay and being a vulnerable and neglected group in the area of trauma research (Mueser et al., 2001; Spitzer et al., 2001).

Psychosis is often accompanied by hospitalisation and over 27,000 people with a diagnosis of schizophrenia, schizotypal or delusional disorders were admitted to a psychiatric hospital in England in 2009-2010 (NHS Information Centre, 2011). Hospitalisation has been cited as one of the most stressful aspects of experiencing mental health problems (Morrison, Bowe, Larkin, & Nothard, 1999) and research has shown it can lead to further traumatisation (e.g., Beattie, Shannon, Kavanagh, & Mulholland, 2009; Centofanti, Smith, & Altieri, 2005; Cusack, Frueh, Hiers, Suffoletta-Maierle, & Bennet, 2003; Jackson, Knott, Skeate, & Birchwood, 2003; McGorry et al., 1991; Morrison et al., 1999). This present study provided further evidence that hospital experiences can be a traumatic event leading to the development of PTSD symptoms/syndrome in those with psychosis. Trauma in hospital may further exacerbate pre-existing psychotic symptoms and PTSD symptoms which may create a vicious cycle leading to further negative and harmful

hospital experiences. The nature of psychosis may also mean that an individual is more vulnerable to exploitation or abuse, due to difficulties with reality testing, judgment, planning and social relationships (Fetter & Larson, 1990; Kelly et al., 1992).

### **Methodological Considerations**

The major limitation of this study is the selective nature of the sample. Care teams de-selected participants who wished to take part but were deemed unsuitable on the basis of trauma history and/or unstable mental state, highlighting the power imbalance and lack of choice and control often characteristic of psychiatric settings. Site differences into the acceptability of asking about trauma were observed, as correspondence with psychiatrists at one site demonstrated they were keen for patients to take part because they wanted to promote choice and thought it may be beneficial for their recovery, other correspondence with another site revealed a psychiatrist who withdrew permission for a whole ward to take part.

A large number of participants declined to take part in the study and this may be due to high rates of trauma, high rates of distress in relation to their experiences or disengagement with services. This is a continual difficulty and is a sampling bias inherent in research in this population and produces a sample that cannot be seen as representative. Studies often approach those with stable symptomatology and are therefore seen as the only group able to provide informed consent. The present study had variation in psychotic symptoms, ranging from no symptoms to highly symptomatic, and in trauma experiences, but the research was unable to establish and therefore compare this to those who were de-selected. Non-inclusion of those with substantial trauma histories indicates the rates of PTSD found may

be an underestimate of the actual rates. It is also difficult to assess how representative the sample was as there was no data available on those who were not allowed to take part or whom refused to take part. Only two participants were unable to complete the study due to concentration difficulties meaning that the drop-out rate was low. Further research would benefit from selecting participants based on random sampling.

Few participants with a ‘sealing-over’ recovery style took part in the study. This may have been because those that adopted an avoidant, sealing style may have been reluctant to take part and research has shown that research into PTSD and trauma tends to exclude those with high avoidance symptoms (Charlton & Thompson, 1996). The selection process meant that those individuals with an ‘integrating’ recovery style may have been more likely to take part as they may have appreciated a further opportunity to understand and integrate their experiences. As recovery style can change and research has shown that an initial integrating style can change to sealing-over 6-months into an admission (Tait, Birchwood, & Trower, 2003), it would have been beneficial to have conducted the interviews at a fixed time interval during participants’ recovery.

A distinct subset of PTSD in psychosis has been proposed and suggested alternative categories include “traumatic psychosis” (Kingdon & Turkington, 1999; Ross, 2004), “PTSD with psychotic features” (Jung, 2001) and “psychosis with trauma history” (Read, Rudegeair, & Farrelly, 2006). However proposals of symptom similarity, between psychosis and PTSD, indicate they may be similar entities (Morrison, Frame, & Larkin, 2003). Indeed, both can be categorised into positive and negative symptoms (McGorry, 1991) and have a number of common factors, such as avoidance, dissociation, intrusions, high arousal, hypervigilance and social withdrawal. It is suggested that it is how events and intrusions are interpreted that influences whether they are viewed on, and then diagnosed

and treated, as PTSD or psychotic (Morrison et al., 2003). In terms of the present study's findings, those who had more psychotic symptoms were more likely to experience psychosis-related PTSD, as per the findings of Meyer, Taiminen, Vuori, Aijala and Helenius (1999). This may be interpreted in a number of ways: psychotic symptoms led to PTSD symptoms; PTSD symptoms exacerbated psychotic symptoms; or psychotic and PTSD symptoms overlapped and so in essence the same construct was measured. It is unclear which of these options is correct and this is further compounded by difficulties with cross-sectional designs and when comparing dynamic symptoms and this symptom overlap may artificially inflate PTSD symptoms. In contending with this, the researcher made clear attempts to help distinguish between psychotic thought processes that were clearly unrelated to trauma versus PTSD symptoms (e.g., a hallucination vs. intrusive memory/flashback) and was alert to the possibility that such symptoms may co-occur.

The PTSD rates found may also be a misrepresentation as PTSD symptoms occur soon after a trauma and then tend to abate over time (Bendall, McGorry, & Krstev, 2006) as illustrated in research studies (e.g., McGorry et al., 1991; Centofanti et al., 2005). The cross-sectional design used meant that participants may have previously met PTSD criteria but this may have been undetected to the study. However given that participants had been in hospital for 27 months on average, the study may have detected more individuals with a delayed-onset PTSD (McFarlane, 1988).

Psychopharmacology and polypharmacy in the sample was high and this may have impacted on memory, attention and concentration and masked some anxiety or arousal symptoms. The whole sample was taking antipsychotic medication and so the results are more generalizable to other patients with psychosis. The sample also had different routes through mental health services as some participants had experienced high-secure care

whereas others had been transferred from acute wards or prison. This leads to difficulties generalising the findings. The length of someone's overall admission was also not assessed and it was commonplace for participants to have been transferred from other hospitals multiple times until they arrived on their current ward.

The study had a high rate of co-morbidity and did not exclude those with other diagnoses such as head injury or Asperger's Syndrome. This does implicate difficulties generalising the results, although it can be seen as a strength as it is more "real-world". Diagnoses were also broad and the study may have benefitted from focussing on affective or non-affective psychosis, especially as research shows differences between diagnoses (e.g., childhood abuse is more prevalent in those with a diagnosis of schizophrenia in comparison to bipolar disorder; Darves-Bornoz, Lemperiere, Degiovanni, & Gaillard, 1995). The study is strengthened by having one researcher and multiple sites being accessed. Women were underrepresented in the study but this is consistent with the lower prevalence rate in psychosis (Iacano & Beiser, 1992) and smaller population of women in secure services (Department of Health, 2002).

The sample size was relatively small, limiting statistical power to detect potentially important factors and therefore raising the possibility of type two statistical error, so the findings must remain preliminary. The sample size may explain why trauma history and specific traumas did not appear to be related to psychotic experiences or PTSD symptoms, as previous studies have suggested. Further research should endeavour to make these comparisons by using a larger sample. The large number of correlations also raises the possibility of type one statistical error.

Research has shown that assessment tools for trauma and PTSD are appropriate for using with people with psychosis (Goodman, Dutton, & Harris, 1999; Mueser et al. 2001,

Mueser, Rosenberg, Jankowski, Hamblen, & Descamps, 2004; Resnick, Bond, & Mueser, 2003). However the IES-R is not a diagnostic tool, although a cut-off was used in the study to represent caseness. Using this self-report measure alone may have reduced the accuracy of diagnosis which could be combatted by using it in conjunction with an interview-based measure, although this would have been time consuming. The IES-R was read aloud to participants, therefore decreasing any difficulties with reading, attention or comprehension.

When measuring PTSD, previous research studies have commonly combined psychosis and hospital experiences due to difficulties differentiating and accurately assessing them separately. As with Meyer et al. (1999), the researcher made clear attempts to differentiate and distinguish between psychosis and hospital experiences when assessing PTSD symptoms. However some participants reported multiple psychotic and hospital experiences as distressing and so it would have been advantageous to assess each of these experiences for PTSD separately.

None of the participants had a previous or current diagnosis of PTSD. This maximises the likelihood that the trauma symptoms measured were due to the psychotic symptom/hospital experience. However it is possible that these PTSD symptoms could have been influenced by PTSD symptoms due to other traumatic events (e.g., childhood trauma). This study did not measure PTSD symptoms in relation to other traumatic events and so the answer to this remains unknown. It would have been advantageous to measure lifetime PTSD, as the sample often have multiple or cumulative traumas (Mueser et al., 1998; Resnick et al., 2003). Multiple traumas may also have impacted on the ability to accurately assess reactions to psychosis-related and hospital-related experiences (e.g., if trying to rate flashbacks of a visual hallucination, when also experiencing flashbacks of an assault).

Although studies have shown that disclosures made by patients have high reliability and corroborating evidence (Read, van Os, Morrison, & Ross, 2005), people tend to underreport abuse whilst in hospital (Dill, Chu, Grob, & Eisen, 1991; Read, 1997). Responses may also have been biased due to a number of potential factors, such as high levels of emotional distress, elation or depressed mood. Psychosis may have influenced or distorted memory or recall (Tarrier, 2005) (e.g., through impaired reality testing or delusional symptoms) leading to exacerbation of potentially distressing events. Although the interviewing procedure can ensure that answers are completed fully and can assist with reading ability and difficulties understanding questions, responses may be influenced by the interviewer-interviewee relationship (Polgar & Thomas, 2000). Participants may have been reluctant to reveal information or overstated/understated symptoms, due to social desirability, self-stigma, shame, not wanting to portray themselves in a negative light (Briere, 1992), wanting to display a coping façade or preserve a positive self-view (Janson, 1996). They may have felt pressure to deny harmful experiences as they were still residing in the hospital and the interview took place there, although the researcher made sure that confidentiality and anonymity of responses was explained thoroughly. Those that ‘sealed-over’ and therefore more avoidant and rejecting of their experiences, may have been more likely to deny experiencing distressing psychotic or hospital experiences, therefore biasing the results.

The study asked about events occurring at any point in a participant’s psychiatric hospital history and did not specifically ask for recent events. This means current incidence rates were unknown. The exception of this being sexual relationships with staff, where the researcher did determine whether this was historical or current due to issues of vulnerability, safe-guarding and risk. A strength of this study was the use of a published

hospital experience questionnaire as a number of previous studies have utilised unpublished, homemade measures. The measure used, despite being used in prior studies, did not have any published reliability or validity statistics and so future research would benefit from this. The measure did not cover all participants' experiences and may benefit from including these (e.g., witnessing suicide attempts, admissions abroad, medication side-effects).

Other difficulties with the measures used include difficulties with construct validity as symptoms could have been due to other factors (e.g., lack of goals/aspirations and limited access due to the forensic setting, sleep problems due to medication).

### **Implications for DSM Criteria**

Current definitions of PTSD have advanced to include a range of stressors, yet do not include psychological stressors (Morrison et al., 2003) and it is debated whether stressor criterion of PTSD is needed, as an event is only ever traumatic to that individual (Maier, 2007). The distress and perception of the experience, and therefore the subjective threat rather than solely objective threat, has been found to determine the impact of an event (e.g., victims of rape who perceived the event to be life threatening were more likely to develop PTSD; Kilpatrick et al., 1989) and the meaning an individual assigns to a stressful event is significant in the development of PTSD (Ehlers, Mayou, & Bryant, 2003; Koss, Figueredo, & Prince, 2002; Resnick et al., 2003). Moreover events that are intense, unpredictable and evoke severe helplessness and loss of control are more difficult to integrate (Brewin, Andrews, & Valentine, 2000; Carlson & Dalenberg, 2000).

However, it has remained unclear whether the experience of psychosis can meet PTSD criteria (Shaw, McFarlane, & Bookless, 1997). By definition, the DSM-IV (American Psychiatric Association, 1994) excludes psychotic experiences as meeting the A<sup>1</sup> criteria as the person has to have been exposed to a traumatic event (e.g., an assault, disaster or accident) that involved actual or threatened death or serious injury or a threat to the physical integrity of self or others. There are many similarities between real-life traumatic events and distressing psychotic experiences, despite these experiences being internally generated. Psychosis has been identified as causing intense fear and has the potential to be more distressing, given that symptoms can be personalised and more relatable to an individual in a way that external, objective events cannot (Shaner & Eth, 1989).

Psychological events can be perceived as intensely stressful by an individual and it is suggested that the criterion for PTSD should therefore extend to include threats to psychological integrity (Shaw et al., 1997) and the current study provides evidence that psychosis can be a traumatic event leading to the development of PTSD symptoms/syndrome. It has been suggested that the subjective experience of psychosis should be perceived as if it were truly happening (e.g., believing that one is coming to terrible harm) and therefore would involve actual or threatened death, injury or threat (Morrison et al., 2003), rather than an objective judgment or the degree of danger. Despite the subjective and empirical evidence of the traumatic nature of psychotic symptoms, they do continue to not qualify for criterion A<sup>1</sup>. In practice, this criterion emerges as too restrictive (Power & Dalgleish, 1997), resulting in a source of trauma and legitimate traumatic symptoms being overlooked (McGorry et al., 1991, Priebe, Broker, & Gunkel, 1998). In turn, this leaves a comorbid disorder undiagnosed and untreated, which may lead

to an enduring and worse course of psychosis and its associated outcomes (e.g., social functioning, drug use, depression, suicide, stigma).

### **Implications for Practice**

Currently psychosis does not qualify for the stressor criterion of PTSD, but it has been found to repeatedly hold most of the qualities of events that lead to this disorder. It appears that DSM-IV and ICD-10 diagnostic criteria are too restrictive (Power & Dalgleish, 1997) and by adhering to them there is a risk of missing PTSD symptoms. Indeed, some studies have excluded psychosis-related PTSD from studies due to not meeting criterion (e.g., Howgego et al., 2005) influencing results. As has been suggested, it is recommended that there is a move away from the over-simplified model that only an objective event leads to PTSD and that the role of cognitive mediation and appraisals of experiences should be incorporated (Jackson et al., 2004).

PTSD is a commonly overlooked comorbid disorder (Howgego et al., 2005) and studies have found between 0% and 3% of patients with PTSD had a documented diagnosis (Cascardi, Mueser, DeGiralomo, & Murrin, 1996; Switzer et al., 1999; Mueser et al., 1998). This study found that none of the participants had ever been diagnosed with PTSD, yet 30% met caseness, providing further evidence for the under-reporting of trauma and under-diagnosis of PTSD. PTSD may remain undiscovered as clinician's may be confused by the similarity of symptom presentation in PTSD and psychosis (Lothian & Read, 2002), may not see it as the presenting complaint, patients may be reluctant to volunteer information due to distress, fear or unfamiliarity of the impact of the previous trauma (Howgego et al. 2005). Undiagnosed, and therefore untreated, PTSD may lead to an enduring and worse

course of psychosis (Ross, Anderson, & Clark, 1994) and an increase in distress (Bak et al., 2005; Morrison, Read, & Turkington, 2005), co-morbid disorders (Brady, Killeen, Brewerton, & Lucerini, 2000), drug use (Mueser, Rosenberg, Goodman, & Trumbetta, 2002), stigma, depression and suicide (Tarrier, Khan, Cater, & Picken, 2007), time in services, reduced social functioning, have a poorer response to treatment (Greenfield, Strakowski, Tohen, Batson, & Kolbrener, 1994) and more relapses (Goff, Brotman, & Kindlon, 1991). This therefore emphasises the importance for clinicians to routinely and regularly assess trauma history and PTSD using valid and reliable assessment measures with clear documentation of the assessment and findings. The clinical importance of asking patients about trauma has been widely acknowledged (Morrison et al., 2005; Read, 1997; Read & Argyle, 1999).

Despite this, the majority of trauma remains unidentified by child and adult mental health services (Read, 2006; Read, McGregor, Coggan, & Thomas, 2006; Read, van Os, & Morrison, 2005) and there is evidence that this is particularly the case with individuals with psychosis (Young, Read, Barker-Collo, & Harrison, 2001). These pre-existing barriers to the detection of trauma and PTSD may be further exacerbated by recent economic pressures and the impact this has on mental health services (e.g., a reduction of services, increased pressure on mental health staff). However, even when trauma is known in people with a severe mental illness, they tend to receive inadequate mental health services (Frueh et al., 2002). Thus, it is imperative that health services integrate trauma assessments into routine clinical practice and facilitate staff to access training programmes covering “why, how and when” to ask about trauma (Read, Hammersley, & Rudegair, 2006). This will not only enable patients to access appropriate treatments in a timely manner, but can also inform risk assessment (e.g., the link between trauma and suicidality). This should also be

extended to the legal system as pathways to care indicate many inpatients enter the mental health system via the legal system where a trauma history may be more likely to go unrecognised (Kluft, 1996).

The study found the majority of the participants had experienced at least one negative experience in hospital and over 5000 experiences were reported overall. It is of particular importance for services to reduce negative hospital experiences as repetitive trauma is the strongest predictor of PTSD (Neria, Bromet, Sievers, Lavelle, & Fochtmann, 2002) and cumulative trauma may increase general psychopathology and impact on how individuals relate to others (Herman, 1992; Neria, Soloman, & Dekel, 1998). A large proportion of participants had never been asked about negative hospital experiences by staff and reported their most distressing hospital experience had impacted on their mental health and made them reluctant to engage in mental health treatment. It is commonplace in psychiatric settings for staff to have a debrief or review post-incident and it appears that extending this to patients may help minimise the impact of potentially harmful experiences and promote therapeutic and recovery-focussed environments and engagement with treatment and rehabilitation programmes.

When actions such as restraint, forced medication or seclusion were needed, a number of participants spoke of needing clearer and fuller explanations of what was going on, rather than just being given the name of the medication being administered. Many spoke of being overwhelmed and confused at these times and just wanting one person to talk to them at a time and preferably someone they already knew and trusted. Documenting these as advance decisions would help staff know what is the most helpful action to take in these situations and may help reduce the traumatising nature of hospital. Repeatedly having to discuss

previous traumas, especially when these were linked to index offences, were reported as difficult particularly as discussions of these often came unexpectedly and without warning.

It was common for participants to have experienced a range of negative experiences during hospitalisation, including bullying, racism, sexual assaults and physical assaults from staff. This is a disturbing discovery and it is important for future research to determine the prevalence rates of negative hospital experiences with a larger sample. Participants continually described the power imbalance and reported feelings of fear, humiliation and despair. Some felt they were too unwell or too scared to report experiences and when they did they were often not listened to or laughed at. Participants often reported having to “adapt to the system”, “keeping your head down” and “having eyes in the back of your head”. Indeed one participant requested the researcher help them to report continued sexual advances they were experiencing which they had raised with nursing staff but had been dismissed. These reports have clear implications for hospital policies targeting improved staff training and clear whistle-blowing policies for both staff and patients. This would be in conjunction with strategies minimising the use of potentially harmful or coercive experiences (e.g., intensive nursing rather than seclusion) and environment enhancing factors (e.g., smaller wards, higher staff to patient ratio). These approaches, alongside clear communication and accountability, collaborative care, increased service user representation, may help to ensure that the mental health services are most sensitive to the potentially adverse effects of being in hospital. Furthermore, by providing a safe and therapeutic hospital environment built on trust, empathy and mutual respect, improvements in individual’s recovery and attachment styles may be made.

## **Implications for Research**

Long-term longitudinal studies of the interaction between trauma, PTSD and psychosis are needed to help better understand their complex relationship and to determine if there is a specific subset of PTSD and one that is associated with psychosis and hospitalisation. This may increase our understanding of the symptom similarities (e.g., a hallucination vs. intrusive memory/flashback) and has implications for clinical practice and future versions of diagnostic manuals.

Given the effects of experiencing multiple or ongoing traumas (Neria et al., 2002), preventing exposure is primary. Secondary to this is preventing the development of PTSD immediately after trauma exposure and then treating PTSD once it has emerged. Larger prospective studies at varying stages of illness are needed to gain an understanding of how psychosis-related and hospital-related PTSD impacts on the prognosis of psychosis and how improved assessment and treatment approaches may lead to better clinical outcomes (e.g., integration, self-esteem, engagement, insight and compliance). Qualitative approaches may also be utilised to explore the impact that assessment and treatment approaches have, such as the experience of talking to someone about what has happened to them, the impact of normalising their experiences or the use of antipsychotic prescribing (Ross & Read, 2004).

The effectiveness of cognitive-behavioural therapy (CBT) in treating PTSD in psychosis has preliminarily been shown (Bisson et al., 2007) but is far from established particularly as individuals with psychosis have historically been excluded from PTSD studies. Randomised-controlled trials of CBT for psychosis-related and hospital-related PTSD are needed to determine the effectiveness of the treatment, what elements of an intervention are

successful (e.g., cognitive therapy, exposure therapy, relaxation training) and whether the prevention or management of secondary morbidity influences outcomes (e.g., the impact on psychotic or depressive symptoms, social relationships, use of services and recovery). This is particularly important given patients with trauma-related psychotic symptoms may be treatment resistant to pharmacological interventions and case management, but may respond well to CBT (Callcott, Standart, & Turkington, 2004). Economic cost-analyses would also be beneficial to determine the utility of such targeted interventions, particularly as mental health services and infrastructure have experienced budget cuts in recent times.

Moreover, studies should focus on the differences between psychosis-related and non-psychosis related PTSD. Future research should aim to determine prevalence rates of negative hospital experiences with a larger sample, as previous studies primarily focus on patient/staff safety, training and policies rather than an empirical focus (Cusack, Yim, Knapp, Robins, & Frueh, 2007). Committing an offence has been identified as a potential source of trauma (Kruppa, Hicket, & Hubbard, 1995) and future research could examine this. Further research is needed into the subjective factors that personalise trauma during psychosis and hospitalisation such as attributions, appraisals and meta-cognitions to see if they could mediate psychological responses and this ideally would be done prospectively to test the relationship between these variables and PTSD over time. It is also important to establish prevalence rates of psychosis-related and hospital-related PTSD in different diagnostic groups, age groups (e.g., adolescent psychosis) and different treatment settings (e.g., treatment in the community).

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## Appendix A: Guide for authors for *Clinical Psychology Review*

**Submission requirements:** Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail removing the need for a paper trail.

**Submission declaration:** Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

**Article structure:** Manuscripts should be prepared according to the guidelines set forth in the Publication Manual of the American Psychological Association (6th ed., 2009). Manuscripts should ordinarily not exceed 50 pages. Exceptions may be made with prior approval of the Editor in Chief for manuscripts including extensive tabular or graphic material, or appendices.

**Appendices.** If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

### **Essential title page information:**

*Title.* Concise and informative. Titles are often used in information-retrieval systems.

Avoid abbreviations and formulae where possible. **Note: The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.**

*Author names and affiliations.* Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

*Corresponding author.* Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

*Present/permanent address.* If an author has moved since the work described in the article was done, or was visiting at the time, a "Present address" (or "Permanent address") may be indicated as a footnote to that author's name. The address at which the author actually did

the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

**Abstract:** A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

**Keywords:** Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, "and", "of"). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Tables:** Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables below the table body and indicate them with superscript lowercase letters. Avoid vertical rules. Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article.

**References:** Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition.

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## Appendix B: Guide for authors for *Schizophrenia Bulletin*

### INFORMATION FOR AUTHORS

*Schizophrenia Bulletin* is an international peer-reviewed journal that publishes unsolicited and invited reports and reviews of clinical and experimental research relating to all aspects of schizophrenia. Each issue is based on one or more themes with articles about recent advances in the clinical and basic scientific aspects of that area. A guest editor will be responsible for planning and organizing the theme content and will typically invite contributions from leaders in the field. Themes for future issues will be published in advance online. *Schizophrenia Bulletin* will consider unsolicited full-length manuscripts relating to any aspect of a future theme issue provided they have scientific merit and represent an important advance in knowledge. The *Bulletin* will also periodically publish an *At Issue* section focusing on theory or controversial topics including issues in ethics. Historical perspectives from patients and their families are also welcome.

### EDITORIAL POLICIES

Manuscripts must be written in English and are accepted for consideration with an explicit understanding that the material has not been previously published in whole or substantial part and is not currently under consideration for publication by any other journal. All matters relating to the editorial policies of *Schizophrenia Bulletin* should be addressed in writing to Prof. William Carpenter, M.D., Editor-in Chief, *Schizophrenia Bulletin* Editorial Office, Maryland Psychiatric Research Center, PO Box 21247, Baltimore, MD 21228, USA. Manuscripts should be submitted through the journal's web-based manuscript submission system as instructed below.

**COPYRIGHT:** *Schizophrenia Bulletin* does not require authors to transfer copyright of their submitted material. Rather, it is a condition of publication in the journal that authors grant an exclusive license to the Maryland Psychiatric Research Center and Oxford University Press. This ensures that requests from third parties to reproduce articles are handled efficiently and consistently and will also allow the article to be as widely disseminated as possible. In assigning the license, authors may use their own material in other publications provided that the Journal is acknowledged as the original place of publication, and that the Maryland Psychiatric Research Center and Oxford University Press are notified in writing and in advance.

**INFORMED CONSENT AND ETHICS COMMITTEE APPROVAL:** Manuscripts reporting experiments on patients or healthy volunteers must record the fact that the subjects' consent was obtained and include a statement that the research was approved by the responsible ethical committee of the institution (e.g., an institutional review board) and was consistent with the principles outlined in an internationally recognized standard for the ethical conduct of human research. Consent must be also recorded when photographs of patients are shown or other details given that could lead to the identification of the individuals. Authors may be required to provide tangible proof that the necessary permissions and consents have been obtained from study participants.

Manuscripts must be written in English and are accepted for consideration with an explicit understanding that the material has not been previously published in whole or substantial part and is not currently under consideration for publication by any other journal.

**CONFLICT OF INTEREST:** At the point of submission, *Schizophrenia Bulletin's* policy requires that each author reveal any financial interests or connections, direct or indirect, or other situations that might raise the question of bias in the work reported or the conclusions, implications, or opinions stated - including pertinent commercial or other sources of funding for the individual author(s) or for the associated department(s) or organization(s), personal relationships, or direct academic competition. When considering whether you should declare a conflicting interest or connection please consider the conflict of interest test: Is there any arrangement that would embarrass you or any of your co-authors if it was to emerge after publication and you had not declared it?

Examples of potential conflicts include a proprietary interest in a drug or product mentioned in the study, equity interest in the sponsor of the study or any other commercial entity with a potential financial interest in its outcome, or payments with a cumulative monetary value exceeding \$ 2,000 made by the sponsor to the investigators or their family members during or within two years of the completion of the study. Institutional support for the study should be included in the Acknowledgments section of the manuscript.

All manuscripts submitted for publication will contain a Conflict of Interest statement. The corresponding author will describe each circumstance in sufficient detail to enable the editors and reviewers to assess its scope and to identify the author(s) with whom the conflict(s) exist. If the corresponding author has indicated that no conflict exists, the following statement will be inserted by the publisher and will appear at the end of the published manuscript:

“The Authors have declared that there are no conflicts of interest in relation to the subject of this study.”

**FUNDING:** Details of all funding sources for the work in question should be given in a separate section entitled 'Funding'. This should appear before the 'Acknowledgments' section.

The following rules should be followed:

- The sentence should begin: ‘This work was supported by ...’
- The full official funding agency name should be given, i.e. ‘the National Cancer Institute at the National Institutes of Health’ or simply 'National Institutes of Health', not 'NCI' (one of the 27 substitutions) or ‘NCI at NIH’ (full RIN-approved list of UK funding agencies).
- Grant numbers should be complete and accurate and provided in parentheses as follows: ‘(grant number xxxx)’

- Multiple grant numbers should be separated by a comma as follows: '(grant numbers xxxx, yyyy)'
- Agencies should be separated by a semi-colon (plus 'and' before the last funding agency)
- Where individuals need to be specified for certain sources of funding the following text should be added after the relevant agency or grant number 'to [author initials]'.

An example is given here: 'This work was supported by the National Institutes of Health (P50 CA098252 and CA118790 to R.B.S.R.) and the Alcohol & Education Research Council (HFY GR667789).'

## MANUSCRIPT PREPARATION

All manuscripts are submitted and reviewed via the journal's web-based manuscript submission system.

Manuscripts submitted to *Schizophrenia Bulletin* should be prepared following the *American Medical Association Manual of Style*, 10th edition. The manuscript text (including tables) should be prepared using a word processing program and saved as an .rtf or .doc file. Other file formats will not be accepted. Figures must be saved as individual .tif files and should be numbered consecutively (i.e., Figure 1.tif, Figure 2.tif, etc.). The text must be double-spaced throughout and should consist of the sections described below.

**TITLE PAGE:** This page should consist of (i) the complete title of the manuscript, (ii) a running title not to exceed 50 characters including spaces, (iii) the full name of each author and the authors' institutional affiliations, (iv) name, complete address, telephone, fax, and e-mail address of the corresponding author, and (v) separate word counts of the abstract and text body.

**MANUSCRIPT LENGTH:** Manuscripts should be concisely worded and should not exceed 6,000 words for invited articles for theme issues, 4,500 words for regular articles, or 2,500 words for invited special features. The word count should include the abstract, text body, figure legends, and acknowledgments and must appear together with the abstract word count on the title page of the manuscript. Supplementary data, including additional methods, results, tables, or figures will be published online.

**ABSTRACT:** Provide a summary of no more than 250 words describing why and how the study, analysis, or review was done, a summary of the essential results, and what the authors have concluded from the data. The abstract should not contain unexplained abbreviations. Up to six key words that do not appear as part of the title should be provided at the end of the abstract.

**MAIN TEXT:** Unsolicited original manuscripts reporting novel experimental findings should be comprised of these sections, in this order: Abstract, Introduction, Methods, Results, Discussion, Acknowledgments, References, and Figure Legends. Review articles must contain an abstract; however, the body of the text can be organized in a less structured

format. Authors of review articles are encouraged to use section headers to improve the readability of their manuscript.

Number pages consecutively beginning with the title page. Spelling should conform to that used in *Merriam-Webster's Collegiate Dictionary*, eleventh edition. Clinical laboratory data may be expressed in conventional rather than Système International (SI) units.

**ACKNOWLEDGEMENTS:** These should be as brief as possible but include the names of sources of logistical support.

**REFERENCES:** Authors are encouraged to be circumspect in compiling the reference section of their manuscripts and to adhere to the following guidelines: Invited article for a theme: up to 50 references; Regular article: up to 40 references; Theme introduction and Special features: up to 25 references. Authors who anticipate submitting a manuscript with additional citations are encouraged to contact the editorial office before proceeding. Each reference should be cited in consecutive numerical order using superscript arabic numerals, and reference style should follow the recommendations in the *American Medical Association Manual of Style*, 10th edition, with one exception: in the reference list, the name of all authors should be given unless there are more than 6, in which case the names of the first 3 authors are used, followed by "et al."

- Book: Talairach J, Tournoux P. *Co-planar stereotaxic atlas of the human brain*. New York, NY: Thieme Medical Publishers; 1998.
  - Book chapter: Goldberg TE, David A, Gold JM. Neurocognitive deficits in schizophrenia. In: Hirsch SR, Weinberger DR, eds. *Schizophrenia*. Oxford, England: Blackwell Science; 2003:168-184.
  - Journal article: Thaker GK, Carpenter WT. Advances in schizophrenia. *Nat Med*2001;7:667-671.
  - Journal article with more than 6 authors: Egan MF, Straub RE, Goldberg TE, et al. Variation in GRM3 affects cognition, prefrontal glutamate, and risk for schizophrenia. *Proc Natl Acad Sci USA* 2004;101:12604-12609.
  - Article published on Advance Access only: Gilad, Y. and Lancet, D. March 5, 2003. Population Differences in the Human Functional Olfactory Repertoire. *Mol Biol Evol*doi:10.1093/molbev/msg013.
  - Article first published on Advance Access: Gilad, Y. and Lancet, D. 2003. Population Differences in the Human Functional Olfactory Repertoire *Mol Biol Evol* 2003;20:307-314. First published on March 5, 2003, doi:10.1093/molbev/msg013.
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Wherever possible figures should be submitted in their desired final size, to fit the width of a single (88 mm) or at most a double (180 mm) column width. All letters and numerals appearing in a particular figure should be of the same size and in proportion to the overall dimensions of the drawing. Letter labels used in figures should be in upper case in both the figure and the legend. The journal reserves the right to reduce the size of illustrative material.

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**SUPPLEMENTARY MATERIAL:** Supporting material that is not essential for inclusion in the full text of the manuscript, but would nevertheless benefit the reader, can be made available by the publisher as online-only content, linked to the online manuscript. The material should not be essential to understanding the conclusions of the paper, but should contain data that is additional or complementary and directly relevant to the article content. Such information might include more detailed methods, extended data sets/data analysis, or additional figures (including color). It is standard practice for appendices to be made available online-only as supplementary material. All text and figures must be provided **in separate files from the manuscript files labeled as supplementary material** in suitable electronic formats.

All material to be considered as supplementary material must be submitted at the same time as the main manuscript for peer review. It cannot be altered or replaced after the paper has been accepted for publication. Please indicate clearly the material intended as supplementary material upon submission. Also ensure that the supplementary material is referred to in the main manuscript where necessary.

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**Appendix C: Table to literature review**

Table 1. Studies investigating psychosis-related and hospital-related PTSD symptoms.

Authors & Date	Participants	Design	Measures	Key Results
McGorry, Chanen, McCarthy, Van Riel, McKenzie & Singh (1991)	36 in-patients with an acute psychotic episode	Repeated measures 12-month follow-up 3 time-points Quantitative	BDI, IES, PTSD Scale, SANS	45.8% at 4-month and 34.5% at 11-month follow-up met criteria for combined psychosis-related and hospital-related PTSD PTSD symptoms linked to hospitalisation and less so to psychosis Strong relationship between PTSD and depression at 4-month and 11-month follow-up No relationship between PTSD and admission number, involuntary status or negative symptoms
Shaw, McFarlane & Bookless (1997)	45 in-patients with an acute psychotic episode	Cross-sectional Quantitative	BPRS, CAPS, CIDI, HES IES	52.3% met criteria for combined psychosis-related and hospital-related PTSD All had current PTSD symptoms PTSD group were significantly more distressed than non-PTSD group Hospitalisation was distressing and was associated with intrusive thoughts Most distressing experiences were seclusion, thoughts of harming family and physical abuse. Most intrusive experiences were thoughts of harming family, worries about losing custody of children and being away from work Most distressing psychotic symptoms were olfactory hallucinations, beliefs that someone means harm and beliefs about being controlled. Most intrusive experiences were beliefs about being controlled, auditory hallucinations and beliefs that someone means harm
<p><i>Note.</i> AES= Admission Experience Survey; AMT=Autobiographical Memory Test; BAI=Beck Anxiety Inventory; BAPS=Beliefs about Paranoia Scale; BDI-II=Beck Depression Inventory; BPRS=Brief Psychiatric Rating Scale; CAPS=Clinician-Administered PTSD Scale; CDS=Calgary Depression Scale; CIDI=Composite International Diagnostic Interview; CSS=Crisis Support Scale; CTQ=Childhood Trauma Questionnaire; DoT=Details of Threat Questionnaire; FCRS=Factor Construct Rating Scale; FoRSe=Fear of Recurrence Scale; HADS=Hospital Anxiety and Depression Scale; HEQ=Hospital Experiences Questionnaire; IES=Impact of Events Scale; IES-R=Impact of Events Scale – Revised; IS=Insight Scale; ISOS=Integration/Sealing Over Scale; IUS=Intolerance of Uncertainty Scale; IVI=Interpretation of Voices Inventory; KGV=Psychiatric Assessment Scale; PANSS=Positive and Negative Syndrome Scale; PATS=PTSD Assessment Tool for Schizophrenia; PCL=PTSD Checklist; PCQ=Perceived Control Questionnaire; PDS=Posttraumatic Diagnostic Scale; Penn=Penn Inventory; PEQ=Psychiatric Experiences Questionnaire; PHQ=Perception of Helplessness Questionnaire; PSE=Present State Examination; RSQ=Recovery Style Questionnaire; SANS=Scale for the Assessment of Negative Symptoms; SAQ=Service Attachment Questionnaire; SASRQ=Stanford Acute Stress Reaction Questionnaire; SLES=Stressful Life Experiences Screening; TAA=Trauma Assessment for Adults; THQ=Trauma History Questionnaire; TLEQ=Traumatic Life Events Questionnaire.</p>				

Priebe, Broker & Gunkel (1998)	105 out-patients with a diagnosis of schizophrenia	Cross-sectional Quantitative	BPRS, PSE, PTSD Interview	51.4% met criteria for combined psychosis-related and hospital-related PTSD All reported negative hospital experiences Those with involuntary admissions reported more negative experiences PTSD was not correlated with involuntary admissions PTSD was significantly correlated with anxiety and depression
Meyer, Taiminen, Vuori, Aijala & Helenius (1999)	46 in-patients with an acute psychotic episode	Repeated Measures Prospective 2-month follow-up 2 time-points Quantitative	CAPS, IES-R, PANSS	11% met criteria for combined psychosis-related and hospital-related PTSD 69% of PTSD symptoms were related to psychosis and 24% to hospitalisation A significant positive correlation between total PANSS score and PTSD score at week 1 Significant positive correlations between total PANSS score and total PTSD score at week 8 A significant negative correlation between age and treatment-related PTSD scores and age and psychosis-related PTSD scores at week 1 Voluntary patients had higher PTSD scores at week 1 and involuntary patients had more treatment-related traumatic symptoms at week 8
Morrison, Bowe, Larkin & Nothard (1999)	34 patients who had an admission to an acute psychiatric hospital over a 6 year period	Cross-sectional Random sampling postal survey Quantitative	HADS, IES, HEQ, VAS	44% met criteria for hospital-related PTSD Those with involuntary admissions had significantly lower PTSD symptoms Significant association between PTSD symptoms and number of compulsory admissions No association between PTSD symptoms and number of admissions, duration of admission or time since admission
Frame & Morrison (2001)	60 acute in-patients with an acute psychotic episode	Repeated measures 6-month follow-up 2 time-points Quantitative	Standardised measures of trauma and psychosis, self-report measure of PTSD	67% met criteria for combined psychosis-related and hospital-related PTSD at hospital discharge and 50% 4 to 6-month follow-up Psychosis in particular (as well as hospitalisation) made a substantial contribution to traumatisation. Together they accounted for 60% of the variance in PTSD scores and 49% of the variance when psychotic symptoms were controlled for Psychosis and hospitalisation accounting for 24% and 7% unique variance Involuntary admission had no effect on PTSD symptoms
Shaw, McFarlane, Bookless & Air (2002)	45 in-patients with a diagnosis of psychosis or mood disorder with psychotic features	Cross-sectional Quantitative	BPRS, CAPS, CIDI, FCRS, IES, IS, SASRQ	52.3% met criteria for combined psychosis-related and hospital-related PTSD PTSD group rated had more distress and intrusive memories Significant positive associations between PTSD score and specific psychotic symptoms, namely being controlled, visual hallucinations, being followed, thought broadcast, mind-reading and being spied on. More distress due to psychosis and hospitalisation was related to PTSD symptoms PTSD was not significantly related to severity of psychosis, the total number of hospital

				experiences or insight No significant differences in relation to involuntary status, treatment setting or number of admissions between PTSD and non-PTSD Hospital experience score was not associated with PTSD There were no clear associations between PTSD symptoms and treatment, severity of the psychotic episode or age and age of onset
Kennedy, Dhaliwal, Pedley, Sahner, Greenberg & Manshadi (2002)	50 out-patients with a diagnosis of schizophrenia or bipolar	Cross-sectional Quantitative	BDI, IES-R, Penn	40% with bipolar and 23% with schizophrenia met criteria for PTSD related to hallucinations, delusions or other experiences Overall 30% met criteria for PTSD Positive correlations between PTSD symptoms and depression
Koivisto, Janhonen & Vaisanen (2003)	9 voluntary acute in-patients recovering from a psychosis	Phenomenological Qualitative	Semi-structured interview	Psychosis was experienced as an uncontrollable sense of self which included feelings of distress, change and loss of control leading to losing confidence and feeling vulnerable, insecure, fearful, shame, guilt and confusion Admission was experienced as shameful, frightening, difficult but inevitable
Cusack, Frueh, Hiers, Suffolter-Maierle & Bennett (2003)	57 out-patients with a history of psychiatric hospitalisation	Cross-sectional Quantitative	PEQ, PTSD Checklist, TAA	91% experienced at least one negative hospital experience with 70% experienced 3+ 47% experienced a DSM-IV-defined traumatic event: 22% witnessed physical assaults and 18% experienced physical assaults Reports of fear, helplessness or horror in response to these events which was correlated with the number of lifetime trauma, particularly physical/sexual abuse Negative hospital experiences independently contributed to the variance in subjective distress and distress was independent of abuse history
Jackson, Knott, Skeate & Birchwood (2004)	35 out-patients 18 months after a first-episode non-affective psychosis	Cross-sectional Quantitative	HADS, HEQ, IES, KGV PTSD Scale, RSQ	31% met criteria for PTSD with a high level of intrusions and avoidance for the sample 46% was in relation to their breakdown, 11% to psychotic episode, 17% to when they were ill, 9% to schizophrenia and 17% to a variety of descriptions Anxiety, but not depression, was significantly higher in the PTSD group 77% described first-episode as 'extremely stressful' 82% of those admitted described this as 'fairly'/'extremely' stressful PTSD was not related to DUP, place of first treatment, police involvement, Mental Health Act or secure ward
Wood &	9 acute in-patients	Thematic	Semi-	PTSD was not correlated with residual psychotic symptoms Patients and staff felt threatened and unsafe in hospital

Pistrang (2004)	and 7 staff members	analysis Qualitative	structured interview	Patient themes: assault/intimidation; sexual harassment; sharing bedrooms; friendships; own/others psychological functioning making you feel unsafe/frightened Non-consensual themes: seclusion/restraint; administration of medication Staff behaviour themes: staff ability to protect patients; staff ability to listen and understand patients; boundary infringements
Harrison & Fowler (2004)	38 patients with schizophrenia or non-affective psychosis in a Community Mental Health Team, inpatient rehabilitation and acute inpatient ward	Cross-sectional Quantitative	AMT, CDS, IES-R, PANSS	59% of trauma symptoms were related to psychosis and 41% to hospitalisation Negative symptoms had significant positive correlations with avoidance relating to both psychosis and hospitalisation (even when depression was partialled out) Those who avoided traumatic memories of psychosis and hospitalisation had more negative symptoms
Robins, Sauvageot, Cusack, Suffoletta-Maierle & Frueh (2005)	27 out-patients with a diagnosis of serious mental illness and had been previously hospitalized	Thematic analysis Cross-sectional Qualitative	PANSS, Semi-structured interview	67% had witnessed/experienced harmful incidents Hospital setting theme (e.g., threat of physical violence and arbitrary nature of the rules) Interactions with clinical staff theme (e.g., depersonalisation, lack of fairness and disrespect, embarrassment and humiliation) Many had experienced physical assaults and felt hospital was unsafe e.g., due to combustible mix of clients, potentially violent staff members
Frueh, Knapp, Cusack, Grubaugh, Sauvageot, Cousins, Yim, Robins, Monnier & Hiers (2005)	142 out-patients with a diagnosis of serious mental illness and had been previously hospitalized	Cross-sectional Quantitative	PEQ, PTSD Checklist, TAA	63% had witnessed at least one traumatic event High rates of seclusion, handcuffed transportation, physical/sexual assaults and were distressing High rates of harmful experiences were reported, e.g., medication used as a threat/punishment, and were distressing Lifetime history of sexual assault had significantly higher traumatic hospital experiences and higher concerns for personal safety, helplessness, fear and distress Lifetime history of physical assault had significantly higher concerns for personal safety and distress
Centofanti, Smith & Altieri	20 out-patients recovering from a psychotic episode	Cross-sectional Quantitative	BPRS, CAPS, HEQ, THQ	25% met criteria for combined psychosis-related and hospital-related PTSD A high proportion met the individual PTSD sub-criteria General trend towards higher PTSD rates in recently discharged, but PTSD scores were not

(2005)	and had been hospitalised within the previous year			significantly correlated with time since last admission or total number of admissions Hospital experiences and being taken to hospital was highly distressing. Only PTSD scores and police transportation to hospital approached significance Most distressing hospital events were suicidal thoughts or attempts PTSD scores were positively related to overall number of hospital experiences PTSD scores were correlated with distress for hospital experiences Number of previous traumas was significantly related to PTSD symptoms
Chisholm, Freeman & Cooke (2006)	36 out-patients with a diagnosis of schizophrenia or non-affective psychosis and had experienced an hospitalisation or home treatment in the previous year	Cross-sectional Quantitative	BPRS, CSS, DoT, IES PCQ, PHQ SLES	61.1% had a moderate/severe PTSD reaction to psychosis 25% had mild PTSD reactions 13.9% had subclinical reactions PTSD symptoms was significantly associated with levels of helplessness and previous trauma and lower levels of control and crisis support First-episode group had lower PTSD scores than relapse group PTSD symptoms were significantly associated with higher perceptions of power of the persecutor, awfulness of the threat, inability to cope, thinking persecution to be deserved and lower ratings of situational control
Dunkley, Bates, Foulds & Fitzgerald (2007)	Two out-patients who had a first-episode of bipolar disorder with psychotic features requiring hospitalisation	Prospective 2 time-points Qualitative/quantitative	PANSS, RSQ, Semi-structured interview	1. Psychosis was distressing. Also distressed by being “locked up”, hospital conditions, rules, staff responses, other patients. Legal system was distressing due to powerlessness, treatment by staff and a physical assault 2. Distressing aspects included isolation from family, other patients, being “locked up”, police-assisted admission, inability to make choices, not understanding reason for admission, sedation and seclusion.
Tarrier, Khan, Cater & Picken (2007)	35 in-patients with a first-episode of non-organic psychosis	Cross-sectional Quantitative	CAPS, PANSS, Semi-structured interview	38% met criteria for combined psychosis-related and hospital-related PTSD Positive psychotic symptoms were associated with physical harassment or violence Hospitals were distressing due to confusion/fear by admission, police insensitivity, fear of patients, staff attitudes and forced to take medication Those who had experienced physical harassment/violence had significantly higher PTSD, avoidance and arousal scores Significant association between PTSD and involuntary status
White & Gumley (2009)	27 out-patients with a diagnosis of schizophrenia and were	Cross-sectional Quantitative	BPRS, CAPS, FoRSe, HADS, IES-	37% met criteria for psychosis-related PTSD PTSD group had significantly higher negative symptoms, total PANSS scores, depression and anxiety No differences regarding gender, age, positive symptoms, number of admissions or time since the

	distressed by experiences		R, IUS, IVI	last admission
Beattie, Shannon, Kavanagh & Mulholland (2009)	47 out-patients who had experienced psychosis and been discharged from an inpatient unit within the previous year	Cross-sectional Quantitative	AES, CTQ, IES-R, KGV, SAQ, THQ	PTSD group associated with negative appraisals about paranoid thoughts, being intolerant of uncertainty and being fearful of psychosis recurring  31% and 45% met PTSD criteria for hospitalisation and psychosis respectively 61.7% identified positive symptoms as most distressing - auditory hallucinations and affective symptoms most commonly named First admission identified as most distressing aspect of hospital followed by most recent admission Affective symptoms associated with PTSD symptoms Past physical/sexual traumas were related to intrusion and avoidance symptoms
Mueser, Lu, Rosenberg & Wolfe (2010)	38 out-patients who had inpatient treatment for a psychotic episode in the past 6 weeks and had one or two prior episodes	Cross-sectional Quantitative	BAI, BDI, BPRS, CAPS, ISOS, PATS, PDS, TLEQ	47% and 31% met PTSD criteria for psychosis-related and hospital-related psychosis Most distressing symptoms were paranoid thoughts, fear of losing one's mind, and violent/strange/embarrassing behavior Most distressing treatment experiences were involuntary hospitalisation and being secluded/restrained 53% found symptoms and 42% found treatment most distressing PTSD group had significantly higher depression, anxiety and psychopathology scores and number of days abusing drugs and were more likely to integrate psychotic experience

## Appendix D: Participant Information Sheet

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The University  
of Manchester

16.06.10 – version 4  
School of Psychological Sciences  
2<sup>nd</sup> Floor Zochonis Building  
Brunswick Street  
Manchester  
M13 9PL  
Tel: 0161 306 0400  
*sarah.ford@postgrad.manchester.ac.uk*

### Participant Information Sheet

#### Factors associated with PTSD Symptoms in a Rehabilitation Setting

You are being invited to take part in a research study. Before you decide if you want to take part, it is important for you to understand why the research is being done and what it will involve. Ask us if there is anything that is not clear or you would like more information about. Talk to your key worker, family or friends and take time to decide whether or not you wish to take part.

#### What is the purpose of the study?

We are inviting you to take part in a study looking at different factors which might be associated with trauma symptoms. The study will look at people's experiences of being in hospital and their mental health and will look at the factors that may be associated, such as recovery style (which is the way people adapt to their experience of psychosis e.g., whether they wish to push it to the back of their minds or whether they relate it to their everyday experiences), attachment style (how someone relates to others in close relationships) or previous traumatic experiences. This project is being completed as part of a doctorate in clinical psychology.

**Why have I been invited to take part?**

We are approaching all patients who have been patients on rehabilitation unit for at least one month to ask if they want to help us explore experiences of hospitals and mental health. Your key worker has agreed for us to approach you.

**Do I have to take part?**

No, taking part is voluntary. If you would prefer not to take part you do not have to give a reason. Staff involved in your care will not be upset and your treatment will not be affected. If you take part but later change your mind, you can withdraw at any time from the study without affecting the standard of your care. If you do decide to take part you will be given this information sheet to keep and asked to sign a consent form.

**What will happen to me if I take part?**

We would like to recruit a total of 50 patients in psychiatric rehabilitation services. If you decide to take part, you will be asked to complete an interview about your mental health and questionnaires about hospital experiences, previous trauma experiences and viewpoints on recovery and relationships. The interview will take no longer than two hours in total and can be carried out in one go or over several meetings. We will try to make appointments at times which suit you. Interviews will take place in a private room in the unit and some interviews will be taped so the researcher can make sure they carrying out the interviews well. You are free to ask the researcher not to tape the interview or to stop the taping during the interview if you wish and this will not affect your participation in the study. The researcher will need to look at your medical notes to get basic information about you such as your age, gender, diagnosis and length of time in current unit.

**Expenses and Payments**

You will receive £5 in cash for taking part in the research study.

**What are the possible disadvantages and risks of taking part?**

The questions we ask are questions that you are likely to have been asked before (e.g., about previous experiences or about your mental health). These questions might cause some distress. You do not have to answer any questions you do not want to and can stop the

interview at any time. If you do feel distressed as a result of the interview you can contact the researcher at the University on 0161 306 0400. If you are feeling very distressed during out of office hours, we suggest you speak to your key worker or other staff on the unit.

**What are the possible benefits?**

You may not benefit directly from taking part in the study. The information we get from this study will help us to understand in what ways mental health and hospital experiences are experienced as traumatic in a rehabilitation setting, which we hope will ultimately lead to better outcomes for patients. The study is planned for 18 months and the findings will be fed back to interested participants at the end of this time period. You will not be identified in any report of the study.

**What happens when the research study stops?**

The study will be written up as partial fulfilment for a Doctorate in Clinical Psychology at the University of Manchester. Following this the data from the study will be kept for either 5 years after the last publication of the study or for 10 years, whichever is the greater, in accordance with the University of Manchester policy on storage of personal data. Consent forms from the study will be retained as essential documents, but items such as contact details will be deleted as soon as they are no longer needed.

**Will my taking part in the study be kept confidential?**

Yes. All information which is collected about you during the course of the research will be kept strictly confidential, and any information about you which leaves the hospital will have your name and address removed so that you cannot be recognised. We will follow ethical and legal practice and we will conform to the Data Protection Act of 1998 with respect to data collection, storage and destruction.

As you are under the care of a mental health NHS Trust, a copy of your consent form will be copied into your usual medical notes. With your permission, we would like to send your key worker a copy of the information sheet and a standard letter saying that you have

agreed to take part in the study. We do have a responsibility to inform your key worker if you tell us information that suggests you or someone else might be harmed.

### **What will happen to the results of the research study?**

Reports will be sent out to individual participants who request it or talks will be arranged to groups of participants. The study will be written up as partial fulfillment of a Doctorate in Clinical Psychology at Manchester University and a paper will be submitted to a relevant scientific journal.

### **What if there is a problem?**

#### Complaints

If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions. If they are unable to resolve your concern or you wish to make a complaint regarding the study, please contact a University Research Practice and Governance Co-ordinator on (0161) 275 7583 or (0161) 275 8093 or by email to [research-governance@manchester.ac.uk](mailto:research-governance@manchester.ac.uk)

#### Harm

In the event that something does go wrong and you are harmed during the research you may have grounds for a legal action for compensation against The University of Manchester but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you.

The University of Manchester has cover for no fault compensation for bodily injury, mental injury or death where the injury resulted from a trial or procedure you received as part of the trial. This would be subject to policy terms and conditions. Any payment would be without legal commitment. (Please ask if you wish more information on this).

**Who is organising and funding the research?**

Money for participants and for the researcher's travel and photocopying expenses will come from a £400 budget available via the Department of Clinical Psychology within the University of Manchester.

**Who has reviewed the study?**

The study has been reviewed by a Research Ethics Committee. The study protocol was also reviewed and approved by a research sub-committee constituting senior staff from the Department of Clinical Psychology within the University of Manchester.

**Thank you very much for considering taking part in our research. Please discuss this information with your family, friends or mental health team if you wish.**

## Appendix E: Participant Consent Form

**MANCHESTER**  
1824

The University  
of Manchester

16.06.10 – version 2  
School of Psychological Sciences  
2<sup>nd</sup> Floor  
Zochonis Building  
Brunswick Street  
Manchester  
M13 9PL  
Tel: 0161 306 0400  
*Sarah.Ford@postgrad.manchester.ac.uk*

### Consent Form

Patient identification number: .....

Centre Number: .....

---

**Title: Factors associated with PTSD Symptoms in a Rehabilitation Setting**

**Name of Investigator: Sarah Ford**

---

#### Please initial the boxes

1. I confirm that I have read and understand the information sheet dated October 2010 (version 1) for the above study and have had the opportunity to ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.
3. I understand that my interview may be taped by the researcher in order for the researcher to check that they are carrying out

interviews well. I understand that I am free to say that I do not wish it to be taped or for taping to stop during the interview and this will not affect my participation in the study.

- 4. I understand that relevant sections of my medical notes are collected during the study, may be looked at by individuals from the University of Manchester, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.
  
- 5. I consent that the information sheet and a standard letter saying that I have agreed to take part in the study will be sent to my key worker.
  
- 6. I agree to take part in the above study.

Name of Patient: .....

Signature: .....

Date: .....

Name of Researcher: .....

Signature: .....

Date: .....

1 for patient; 1 for researcher; 1 to be kept with hospital notes

MANCHESTER  
1824

The University  
of Manchester

29.03.10 – version 2

School of Psychological Sciences  
2<sup>nd</sup> Floor  
Zochonis Building  
Brunswick Street  
Manchester  
M13 9PL

Tel: 0161 306 0400

*Sarah.Ford@postgrad.manchester.ac.uk*

Dear key worker,

**Re: Factors associated with PTSD Symptoms in a Rehabilitation Setting**

The following patient has agreed to participate in the above study:

I have enclosed a copy of the study information sheet for your reference and would be happy to answer any questions you may have.

With best wishes,

**Sarah Ford**

**Trainee Clinical Psychologist**

**University of Manchester**

## Appendix G: Demographic Sheet

<b>Participant Number</b>	
<b>NHS Trust</b>	
<b>Age</b>	
<b>Gender</b>	
<b>Ethnic Group</b>	
<b>Marital Status</b>	
<b>Pre-Morbid SES</b>	
<b>Primary Diagnosis</b>	
<b>Mental Health Status</b>	
<b>Age at Onset</b>	
<b>No of Hospitalisations</b>	
<b>Length of Current Admission</b>	
<b>Co-Morbid Diagnoses</b>	
<b>Offence</b>	
<b>PTSD Record</b>	
<b>Medication</b>	
<b>Type of Service Currently Receiving</b>	

## Appendix H. Positive and Negative Syndrome Scale

### G1 Somatic concern

- How have you been feeling over the past week?
- Are you having any concerns about your physical health?
- Have you had any worries about illnesses / concerns about the way your body is functioning?
- Do you have some medical illness or disease? If so, how serious is it?

#### **If yes:**

- What do you think might be causing this/these problem/s?
- Have you seen the doctor about this/these problem/s?
- Do you have any medication for this/these problem/s?
- Have often have you thought about.....in the past week? Do you think about it most days? Do you find that these ideas are on your mind a lot? How much of the time?

#### **If delusional conviction about the cause:**

- Are you certain that.....is causing this/these problem/s? How sure are you? Could you be mistaken? Is there any other possible explanation?

### G1 Somatic concern

Physical complaints or beliefs about bodily illnesses or malfunctions. This may range from a vague sense of ill being to clear-cut delusions of catastrophic physical disease.

Basis for rating: Thought content expressed in the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper stream of normal limits.
3. Mild – Distinctly concerned about health or somatic issues, as evidenced about occasional questions and desire for reassurance.
4. Moderate – Complains about poor health or bodily malfunction, but there is no delusional conviction, and overconcern can be allayed by reassurance.
5. Moderate-Severe – Patient expresses numerous or frequent complaints about physical illness or bodily malfunction, or else patient reveals one or two clear-cut delusions involving these themes but is not preoccupied by them.
6. Severe – Patient is preoccupied by one or a few clear-cut delusions about physical disease or organic malfunction, but affect is not fully immersed in these themes, and thoughts can be diverted by the interviewer with some effort.
7. Extreme – Numerous and frequently reported somatic delusions, or only a few somatic delusions of a catastrophic nature, which totally dominate the patient's affect and thinking.

## G2 Anxiety

- **Have you been worrying at all about anything during the past week?**

### **If yes:**

- What do you worry about? Anything else?
- What is it like when you worry, do unpleasant thoughts constantly go round and round in your head?
- How often have you been worried like this in the past week?
- When you feel worried, how long does it usually last? Does it last most of the day? Does it last for several hours or just a few minutes?
- When you start to feel worried/anxious can you reduce or stop the feeling by turning your attention to other things such as watching the TV or chatting to someone?
- Do you find that when you're worrying it stops you from doing things you would normally do? Has it stopped you from doing things in the last week?
- Do you sometimes find it difficult to get off to sleep because of worrying? How about in the last week?
- When you are out and about do you feel anxious? Do these feelings stop you from going out.
- Do you find you get physical symptoms such as heart racing, butterflies, sweaty palms, anything like that?
- **Have there been times in the last week when you have been particularly anxious or frightened? When you might have become quite panicky?**

## G2 Anxiety

Subjective Experience of nervousness, worry, apprehension, or restlessness, ranging from excessive concern about the present or future to feelings of panic.

Basis for rating: Verbal report during the interview and corresponding physical manifestations.

1. Absent – Definition does not apply
2. Minimal – Questionable pathology; may be at the upper stream of normal limits.
3. Mild – Expresses some worry, overconcern, or subjective restlessness, but no somatic and behavioural consequences are evident.
4. Moderate – Patient reports distinct symptoms of nervousness, which are reflected in mild physical manifestations such as fine hand tremors or excessive perspiration.
5. Moderate-Severe – Patient reports serious problems of anxiety which have significant physical and behavioural consequences, such as marked tension, poor concentration, palpitations, or impaired sleep.
6. Severe – Subjective state of almost constant fear associated with phobias, marked restlessness, or numerous somatic manifestations.
7. Extreme – Patients life is seriously disrupted by anxiety, which is present almost constantly and at times reaches panic proportion or is manifested in actual panic attacks.

## **G6 Depression**

**How would you describe your mood over the last week? Do you feel reasonably cheerful or have you had times when you felt a bit low?**

### **If no depression reported:**

- Would you say that you are mostly a cheerful person?
- Do you never let things get you down?

### **If low spirited:**

- How often have you felt that way in the last week? Every day?
- How long does the feeling usually last when you feel low? All day?
- When you feel low, is it quite an intense feeling? Or is it usually only a moderate or mild feeling?
- When you start to feel low do you find that you can sometimes cheer yourself up by watching TV, listening to music, going out or talking to friends/family
- What has your appetite been like lately? Have you lost any weight recently? Have you been dieting?
- Have you had trouble getting off to sleep recently? How long do you lie awake? How often does it happen?
- Have you found that you've lost interest in going out in the past week?
- How do you see the future?
- How do you cope with this?

## **G6 Depression**

Feelings of sadness, discouragement, helplessness, and pessimism.

Basis for rating: Verbal report of depressed mood during the course of interview and its observed influence on attitude and behaviour.

1. Absent – Definition does not apply
2. Minimal – Questionable pathology; may be at the upper stream of normal limits.
3. Mild – Expresses some sadness or discouragement only on questioning, but there is no evidence of depression in general attitude or demeanour.
4. Moderate – Distinct feelings of sadness or hopelessness, which may be spontaneously divulged, but depressed mood has no major impact on behaviour or social functioning, and the patient usually can be cheered up.
5. Moderate-Severe – Distinctly depressed mood associated with obvious sadness, pessimism, loss of social interest, psychomotor retardation, and some interference in appetite and sleep. The patient cannot be easily cheered up.
6. Severe – Markedly depressed mood associated with sustained feelings of misery, occasional crying, hopelessness, and worthlessness. In addition, there is major interference in appetite and/or sleep as well as in normal motor and social functions, with possible signs of self-neglect.

7. Extreme – Depressive feelings seriously interfere in most major functions. The manifestations include frequent crying, pronounced somatic symptoms, impaired concentration, psychomotor retardations, social disinterest, self-neglect, possible depressive or nihilistic delusions, and/or possible suicidal thoughts or action.

### **G3 Guilt feelings**

- In the past week have you experienced times when you blame yourself for things, feel guilty or down on yourself?
- Do you consider yourself a bad person in some ways?

#### **If yes:**

- What do you feel guilty about?
- Why do you feel this is your fault?
- When you think about ..... is it something that makes you feel quite low?
- Do you believe that you deserve some punishment for this? What kind of punishment do you deserve?
- How often have you thought about.....in the past week? Do you think about it most days? Do you find that these ideas are on your mind a lot? How much of the time?

#### **If guilt feelings have a delusional basis:**

- Are you certain that.....is causing this/these problem/s? How sure are you? Could you be mistaken? Is there any other possible explanation?

### **G3 Guilt feelings**

Sense of remorse or self-blame for real or imagined misdeeds in the past.

Basis for rating: Verbal report of guilt feelings during the course of interview and the influence on attitudes and thoughts.

1. Absent – Definition does not apply
2. Minimal – Questionable pathology; may be at the upper stream of normal limits.
3. Mild – Questioning elicits a vague sense of guilt or blame for a minor incident, but the patient is clearly not overly concerned.
4. Moderate – Patient expresses distinct concern over his/her responsibility for a real incident in their life but is not preoccupied with it, and attitude and behaviour are essentially unaffected.
5. Moderate-Severe – Patient expresses a strong sense of guilt associated with self-depreciation or the belief that he/she deserves punishment. The guilt feelings may have a delusional basis, may be volunteered spontaneously, may be a source of preoccupation and/or depressed mood, and cannot be allayed readily by the interviewer.
6. Severe – Strong ideas of guilt take on a delusional quality and lead to an attitude of hopelessness or worthlessness. The patient believes they should receive harsh sanctions for the misdeeds and may even regard their current life situation as their punishment.

7. Extreme – Patient’s life is dominated by unshakable delusions of guilt, for which they feel deserving of drastic punishment, such as life imprisonment, torture, or death. There may be associated suicidal thoughts or attribution of others’ problems to one’s own past misdeeds.

### **P5 Grandiosity**

- Do you think you are special in some way?
- What are your good points?
- Have you had any thoughts recently about having special powers, talents or abilities, or being more important than other people?

#### **If yes**

- What are your special powers/talents/abilities? (*Wealth, knowledge, fame, moral righteousness*)
- How often have you thought about this in the past week? Most days? How much of the time?
- Are you certain that you have this special power/talent/ability? 100% certain?
- How do these abilities affect your day to day life?
- Could you be mistaken? Is there any other possible explanation?

### **P5 Grandiosity**

Exaggerated self-opinion and unrealistic convictions or superiority, including delusions of extraordinary abilities, wealth, knowledge, fame, power, and moral righteousness.

Basis for rating: Thought content expressed in the interview and its influence on behaviour.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Some expansiveness or boastfulness is evident, but without clear-cut grandiose delusions.
4. Moderate – Feels distinctly and unrealistically superior to others. Some poorly formed delusions about special status or abilities may be present but are not acted upon.
5. Moderate-Severe – Clear-cut delusions concerning remarkable abilities, status, or power are expressed and influence attitude but not behaviour.
6. Severe – Clear-cut delusions or remarkable superiority involving more than one parameter (wealth, knowledge, fame, etc.) are expressed, notably influence interactions, and may be acted upon.
7. Extreme – Thinking, interactions, and behaviour are dominated by multiple delusions of amazing ability, wealth, knowledge, fame, and/or moral stature, which may take on a bizarre quality.

### **P3 Hallucinatory behaviour**

- **Do you ever seem to hear noises or voices when there is no one about and nothing else to explain it?** (*auditory hallucinations*)
- **Do you sometimes hear noises like tapping or music? Do you hear muttering or whispering?** (*non verbal auditory hallucinations*) What are these like? How often have you heard them during the last week? Do they bother you? What do you think is the cause of the noise/s
- **Do you ever hear a voice talking?** (*verbal auditory hallucinations*)

If yes:

- **Have you heard voices in the last 7 days?**
- **How many voices have you heard in the last week?**

#### **RECORD THE FOLLOWING FOR EACH VOICE:**

- **Do the voices speak directly to you?** (*second person auditory hallucinations*) **Or do they refer to you as ‘he’ or ‘she?’** (*Third person auditory hallucinations*).
- **Are the voices a man or a woman’s voice?**

#### **PANSS hallucinations in other modalities**

- **Have you had any unusual visual experiences recently?** (*visual hallucinations*).
- Was this in the last week? How often in the last week?
- What did you see?

##### **RECORD NUMBER OF HALLUCNATIONS AND WHAT WAS SEEN**

- How real does this appear? As real as I do now? Was it in colour? Was it 3 dimensional or flat? Did you see it with your eyes or in your mind? Did other people see it? When you saw it were you falling asleep or waking up at the time?
- What do you think caused the vision/s? Factors relating to you or other people? On a scale of 0 to 100 how convinced are you that.....caused the vision/s? **RECORD**

##### **FOR EACH VISION**

- **Do you sometimes notice strange smells that other people don’t notice?** (*olfactory hallucinations*).
- Was this in the last week? How often in the last week?
- What sort of thing do you smell? How do you explain it?

##### **RECORD NUMBER AND WHAT WAS SMELT**

- What do you think caused the smell/s? Factors relating to you or other people? On a scale of 0 to 100 how convinced are you that.....caused the smell/s? **RECORD**

##### **ORIGIN FOR EACH SMELL**

- **Do you ever feel that someone is touching you, but when you look there is nobody there?** (*tactile hallucinations*)
- Was this in the last week? How often in the last week?
- What sort of thing do you feel? How do you explain it?

##### **RECORD NUMBER AND WHAT WAS FELT**

- What do you think caused the feeling/s? Factors relating to you or other people? On a scale of 0 to 100 how convinced are you that.....caused the feeling/s? **RECORD**

##### **ORIGIN FOR EACH FEELING**

- **Do you sometimes get strange feelings in your body? (*somatic hallucinations*)**

- Was this in the last week? How often in the last week?
- What sort of thing do you feel? How do you explain it?

**RECORD NUMBER AND WHAT WAS FELT**

- What do you think caused the feeling/s? Factors relating to you or other people? On a scale of 0 to 100 how convinced are you that.....caused the feeling/s? **RECORD ORIGIN FOR EACH FEELING**

- **Do you ever find that your food tastes unusual? (*gustatory hallucinations*).**

- Was this in the last week? How often in the last week?
- What sort of thing do you taste? How do you explain it?

**RECORD NUMBER AND WHAT WAS TASTED**

- What do you think caused the taste/s? Factors relating to you or other people? On a scale of 0 to 100 how convinced are you that.....caused the taste/s? **RECORD ORIGIN FOR EACH TASTE**

### **P3 Hallucinatory Behaviour**

Verbal report or behaviour indicating perceptions which are not generated by external stimuli. These may occur in the auditory, visual, olfactory, or somatic realms.

Basis for rating: Verbal report and physical manifestations during the course of the interview as well as reports of behaviour by primary care workers of family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – One or two clearly formed but infrequent hallucinations, or else a number of vague abnormal perceptions which do not result in distortions of thinking or behaviour.
4. Moderate – Hallucinations occur frequently but not continuously, and the patient's thinking and behaviour are affected only to a minor extent.
5. Moderate-Severe – Hallucinations are frequent, may involve more than one sensory modality, and tend to distort thinking and/or disrupt behaviour. Patient may have a delusional interpretation of these experiences and respond to them emotionally and, on occasion, verbally as well.
6. Severe – Hallucinations are present almost continuously, causing major disruption or thinking and behaviour. Patient treats these as real perceptions, and functioning is impeded by frequent emotional and verbal responses to them.
7. Extreme – Patient is almost totally preoccupied with hallucinations, which virtually dominate thinking and behaviour. Hallucinations are provided a rigid delusional interpretation and provoke verbal and behavioural responses, including obedience to command hallucinations.

## **P1 Delusions**

### **RECORD NUMBER OF DELUSIONS WITH EXAMPLES**

- **Interference with thinking:** Can you think clearly or is there interference with your thoughts? What kind of interference?
- **Thought insertion:** Are you in full control of your thoughts? Are thoughts put into your head which you know are not your own? How do you know they are not your own? Where do they come from?
- **Thought broadcast:** Do you ever seem to hear your own thoughts spoken aloud in your head, so that someone standing near might be able to hear them? How do you explain this? Are your thoughts broadcast so that other people know what you are thinking?
- **Thought echo or commentary:** Do you ever seem to hear your own thoughts repeated or echoed? What is that like? How do you explain it? Where does it come from?
- **Thought block:** Do you ever experience your thoughts stopping quite suddenly so that there are none left in your mind, even though your thoughts were flowing freely before? What is that like? How does it occur? What is it due to?
- **Thought withdrawal:** Do your thoughts ever seem to be taken out of your head, as though some external person or force were removing them? Can you give an example? How do you explain it?
- **Delusions of thoughts being read:** Can anyone read your thoughts? How do you know? How do you explain it?
- **Delusions of control:** Do you ever feel under the control of some force of power other than yourself? As though you were a robot without a will of your own? As though you were possessed by someone or something else? What is that like?
- **Delusions of reference:** Do you find that complete strangers sometimes talk about you? What do they say? Do people seem to drop hints about you, or say things with a double meaning, or do things in a special way so as to convey a meaning? Can you give an example of what they say/do? Is there any reference to you in the newspapers or television? Do you see any special meaning for yourself in the colours of objects or the way things are arranged?
- **Delusional misinterpretation or misidentification:** Are there people around who are not what they seem to be? Do you ever feel that the place you are in is not what it seems to be? Is anyone keeping a special watch on you? Do you feel you are being tested out in some way?
- **Delusions of persecution:** Is anyone deliberately trying to harm you, e.g., trying to poison you or kill you? How? Is there any kind of organisation behind it? Is there any other kind of persecution?
- **Assistance:** Do you think people are organising things specially to help you? What are they doing?
- **Grandiose abilities:** Is there anything special about you? Do you have any special powers or abilities? Can you read people's thoughts? Is there a special purpose or mission to your life? Are you especially clever or inventive?
- **Grandiose identity:** Are you a very prominent person or related to someone prominent like royalty? Are you very rich or famous? How do you explain this?

- **Religious delusions:** Are you a very religious person? Specially close to God? Can God communicate with you? Are you yourself a saint?
- **Delusional explanations:** How do you explain the things that have been happening? Is anything like hypnotism or telepathy going on? Is anything like electricity or X-rays or radio waves affecting you?
- Do you think your appearance is normal?
- **Depersonalisation:** Is anything the matter with your brain?

## **P1 Delusions**

Beliefs which are unfounded, unrealistic, and idiosyncratic.

Basis for rating: Thought content expressed in the interview on social relations and behaviour.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Presence of one or two delusions which are vague, uncrystallized, and not tenaciously held. Delusions do not interfere with thinking, social relations, or behaviour.
4. Moderate – Presence of either a kaleidoscopic array of poorly formed, unstable delusions or of a few well-formed delusions that occasionally interfere with thinking, social relations, or behaviour.
5. Moderate-Severe – Presence of well-formed delusions that are tenaciously held and occasionally interfere with think, social relations, and behaviour.
6. Severe – Presence of a stable set of delusions which are crystallized, possibly systematised, tenaciously held, and clearly interfere with thinking, social relations, and behaviour.
7. Extreme – Presence of a stable set of delusions which are either highly systematised or very numerous, and which dominate major facets of the patient's life. This frequently results in inappropriate and irresponsible action, which may even jeopardise the safety of the patient or others.

## **P6 Suspiciousness/Persecution**

- Have you felt uneasy or suspicious about anything in the past week?
- Do you generally get on okay with other people?
- Do you trust most people that you know? Are there any people you distrust? Who? Why do you think that is?
- Do people sometimes talk about you behind your back/ spy on you/watch you? What do they say? Why?
- Are people out to harm you?

**If yes:**

- What is the evidence for all this? Who is behind all this? Why does this happen?

- Do your feelings about others affect the way you talk to people? Does it make you not want to talk to people?

### **P6 Suspiciousness/persecution**

Unrealistic or exaggerated ideas of persecution, as reflected in guardedness, a distrustful attitude, suspicious hypervigilance, or frank delusions that others mean one harm.

Basis for rating: Thought content expressed in the interview and its influence on behaviour.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Presents a guarded or even openly distrustful attitude, but thoughts, interactions, and behaviour are minimally affected.
4. Moderate – Distrustfulness is clearly evident and intrudes on the interview and/or behaviour, but there is no evidence of persecutory delusions. Alternatively, there may be indication of persecutory delusions, but these do not seem to affect the patient's attitude or interpersonal relations.
5. Moderate-Severe – Patient shows marked distrustfulness, leading to major disruption of interpersonal relations, or else there are clear-cut persecutory delusions that have limited impact on interpersonal relations and behaviour.
6. Severe – Clear-cut pervasive delusions or persecution which may be systematised and significantly interfere in interpersonal relations.
7. Extreme – A network systematised persecutory delusions dominate the patient's thinking, social relations, and behaviour.

### **G16 Active Social Avoidance**

- Have you found yourself turning down any opportunities to go out with your friends because of fears or worries? Has this happened in the last week? How often?
- Do you prefer to be with others or on your own? Do you feel uncomfortable with others/in groups?
- If you are out and start to feel anxious would you leave and go home?

### **G16 Active social avoidance**

Diminished social involvement associated with unwarranted fear, hostility, or distrust.

Basis for rating: Reports of social functioning by primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Patient seems ill at ease in the presence of others and prefers to spend time alone, although he/she participates in social functions when required.

4. Moderate – Patient begrudgingly attends all or most social activities but may need to be persuaded or may terminate prematurely on account of anxiety, suspiciousness, or hostility.
5. Moderate-Severe – Patient fearfully or angrily keeps away from many social interactions despite others; efforts to engage them. Tends to spend unstructured time alone.
6. Severe – Patient participates in very few social activities because of fear, hostility, and distrust. When approached the patient shows a strong tendency to break off interactions, and generally they tend to isolate themselves from others.
7. Extreme – Patient cannot be engaged in social activities because of pronounced fears, hostility, or persecutory delusions. To the extent possible, he/she avoids all interactions and remains isolated from others.

## **N2 Emotional Withdrawal**

- Do you have anyone to talk to about your problems? Do you talk to them?
- Do people ever come and discuss their problems with you?
- Is there anyone who you are particularly close to?

## **N2 Emotional withdrawal**

Lack of interest in, involvement with, and affective commitment to life's events.

Basis for rating: Reports of functioning from primary care workers or family and observation of interpersonal behaviour during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Usually lack initiative and occasionally may show deficient interest in surrounding events.
4. Moderate – Patient is generally distanced emotionally from the milieu and its challenges but, with encouragement, can be engaged.
5. Moderate-Severe – Patient is clearly detached emotionally from persons and events in the milieu, resisting all efforts at engagement. Patient appears distant, docile and purposeless but can be involved in communication at least briefly and tends to personal needs, sometimes with assistance.
6. Severe – Marked deficiency of interest and emotional commitment results in limited conversation with others and frequent neglect of personal functions, for which the patient requires supervision.
7. Extreme – Patient is almost totally withdrawn, uncommunicative, and neglectful of personal needs as a result of profound lack of interest and emotional commitment.

## **N4 Passive/Apathetic Social Withdrawal**

- Do you sometimes turn down opportunities to go out because you simply can't be bothered? Has this happened in the last week? How often?

- When you go out, say to a party or the pub, do you only go if someone asks you to? Do you tend to enjoy yourself? Do you join in the conversation?
- Do you ever arrange a day out or a night out with others?
- When you are out and people talk to you are you happy to talk back? Do you ever start conversations?

#### **N4 Passive/apathetic social withdrawal**

Diminished interest and initiative in social interactions due to passivity, apathy, anergy, or avolition. This leads to reduced interpersonal involvements and neglect of activities of daily living.

Basis for rating: Reports on social behaviour from primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Shows occasional interest in social activities but poor initiative. Usually engages with others but only when approached first by them.
4. Moderate – Passively goes along with most social activities but in a disinterested or mechanical way. Tends to recede into the background.
5. Moderate-Severe – Passively participates in only a minority of activities and shows virtually no interest or initiative. Generally spends little time with others.
6. Severe – Tends to be apathetic and isolated, participating very rarely in social activities and occasionally neglecting personal needs. Has very few spontaneous social activities.
7. Extreme – Profoundly apathetic, socially isolated, and personally neglectful.

#### **G12 Lack of judgement and insight**

- What is your relationship to ..... (name of keyworker)?
- Why do you see them?
- Do you take any medication? Does it help? What does it do?
- What do you think the medication is supposed to help with?
- Do you feel that medication will be useful to take in the future? Will you carry on taking your medication?
- Have you been given a diagnosis for your illness?
- Do you agree with the diagnosis? (If no) Have you been ill in the past?
- Schizophrenia affects people in many different ways. How do you think it has affected you?
- What symptoms do you have associated with your illness? Do you think \_\_\_\_\_ (*insert delusional beliefs*) is anything to do with your illness/the schizophrenia?
- What do you think caused your illness?

## **G12 Lack of judgement and insight**

Impaired awareness or understanding of one's own psychiatric condition and life situation. This is evidenced by failure to recognize past or present psychiatric illness or symptoms, denial or need for psychiatric hospitalisation or treatment, decisions characterised by poor anticipation or consequences, and unrealistic short-term and long-range planning.

Basis for rating: Thought content expressed during the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Recognizes having a mental disorder but clearly underestimates its seriousness, the implications for treatment, or the importance of taking measures to avoid relapse. Future planning may be poorly conceived.
4. Moderate – Patient shows only a vague or shallow recognition of illness. There may be fluctuations in acknowledgement of being ill or little awareness of major symptoms which are present, such as delusions, disorganised thinking, suspiciousness, and social withdrawal. The patient may rationalise the need for treatment in terms of its relieving lesser symptoms, such as anxiety. Tension, and sleep difficulty.
5. Moderate-Severe – Acknowledges past but not present psychiatric disorder. If challenged, the patient may concede the presence of some unrelated or insignificant symptoms, which tend to be explained away by gross misinterpretation or delusional thinking. The need for psychiatric treatment similarly goes unrecognised.
6. Severe – Patient denies ever having had a psychiatric disorder. He/she disavows the presence of any psychiatric symptoms in the past or present and, though compliant, denies the need for treatment and hospitalisation.
7. Extreme – Emphatic denial of past and present psychiatric illness. Current hospitalisation and treatment are given a delusional interpretation (e.g., as punishment for misdeeds, as persecution by tormentors, etc.), and the patient may thus refuse to cooperate with therapists, medication, or other aspects of treatment.

## **G10 Disorientation**

I'm now going to ask some questions about memory if that's okay...

- Do you know what today's date is? (elicit day/month/year)
- What time of the day is it?
- What season are we in?
- Where are we now? (address/ward/hospital)
- Do you know name of your keyworker? What about your psychiatrist? Doctor?
- Who is the Prime Minister?

## **G10 Disorientation**

Lack of awareness of one's relationship to the milieu, including persons, place, and time, which may be due to confusion or withdrawal.

Basis for rating: Responses to the interview questions on orientation.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – General orientation is adequate but there is some difficulty with specifics. For example, the patient knows their location but not the street address, knows hospital staff names but not their functions, knows the month but confuses the day of the week with an adjacent day, or errs in the date by more than two days. There may be narrowing interest evidenced by familiarity with the immediate but not extended milieu, such as ability to identify staff but not the Mayor, Governor, or President.
4. Moderate – Only partial success in recognising persons, places, and time. For example, patient knows they are in a hospital but not its name, knows the name of the city but not the borough or district, knows the name of their primary care therapist but not many other direct care workers, knows the year and season but not sure of the month.
5. Moderate-Severe – Considerable failure in recognising persons, places, and time. Patient has only a vague idea of where they are and seem unfamiliar with most people in their milieu. He/she may identify the year correctly or nearly so but now know the current month, day of the week, or even season.
6. Severe – Marked failure in recognising persons, place, and time. For example, patient has no knowledge of their whereabouts, confuses the date by more than one year, can name only one or two individuals in their current life.
7. Extreme – Patient appears completely disoriented with regards to persons, place, and time. There is gross confusion or total ignorance about one's location, the current year, and even the most familiar people, such as parents, spouse, friends, and primary therapist.

## **N5 Difficulty in Abstract Thinking**

▪ Now I'd like you to tell me how these pairs of words are similar or alike (work your way down from easiest to most difficult. Keep working down the list until client can no longer provide an answer).

1. (easiest items)
  - Apple and Banana?
  - Ball and Orange?
  - Pencil and Pen?
  - Penny and Pound?
2.
  - Table and Chair?
  - Tiger and Elephant?

- Hat and Shirt?
  - Bus and Train?
- 3.
- Arm and Leg?
  - Rose and Tulip?
  - Uncle and Cousin?
  - The sun and the moon?
4. (most difficult items)
- Painting and poem?
  - Hilltop and valley?
  - Air and Water?
  - Peace and Prosperity?

### **N5 Difficulty in abstract thinking**

Impairment in the use of the abstract-symbolic mode of thinking, as evidenced by difficulty in classification, forming generalisations, and proceeding beyond concrete or egocentric thinking in problem-solving tasks.

Basis for rating: Responses to questions on similarities and proverb interpretation, and use of concrete vs. abstract mode during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Tends to give literal or personalised interpretations to the more difficult proverbs and may have some problems with concepts that are fairly abstract or remotely related.
4. Moderate – Often utilises a concrete mode. Has difficulty with most proverbs and categories. Tends to be distracted by functional aspects and salient features.
5. Moderate-Severe – Deals primarily in a concrete mode, exhibiting with most proverbs and categories.
6. Severe – Unable to grasp the abstract meaning of any proverbs or figurative expressions and can formulate classifications for only the most simple of similarities. Thinking is either vacuous or latched into functional aspects, salient features, and idiosyncratic interpretations.
7. Extreme – Can use only concrete modes of thinking. Shows no comprehension of proverbs, common metaphors or similes, and simple categories. Even salient and functional attributes do not serve as a basis for classification. This rating may apply to those who cannot interact even minimally with the examiner due to marked cognitive impairment

### **P2 Conceptual Disorganisation**

OBSERVATION

Does the patient reply to questions in an irrelevant manner?

\*Does the patient show a pattern of speech in which his/her ideas slip off the track onto another one which is indirectly related or completely unrelated?

Does the patient show a pattern of speech in which conclusions are reached which do not seem to follow logically?

Do the patient's replies last for ages so that they have to be interrupted and urged to get to the point?

Can the patient focus his/her thoughts on the question?

## **P2 Conceptual disorganisation**

Disorganised process of thinking characterised by disruption of goal directed sequencing, e.g., circumstantially, tangentially, loose associations, nonsequiturs, gross illogicality, or thought block.

Basis for rating: Cognitive-verbal processes observed during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Thinking is circumstantial, tangential, or paralogical. There is some difficulty in directing thoughts towards a goal, and some loosening of associations may be evidenced under pressure.
4. Moderate – Able to focus thoughts when communications are brief and structured, but becomes loose or irrelevant when dealing with more complex communications or when under minimal pressure.
5. Moderate-Severe – Generally has difficulties in organising thoughts, as evidenced by frequent irrelevancies, disconnectedness, or loosening of association even when not under pressure.
6. Severe – Thinking is seriously derailed and internally inconsistent, resulting in gross irrelevancies and disruption of thought processes, which occur almost constantly.
7. Extreme – Thoughts are disrupted to the point where the patient is incoherent. There is marked loosening of associations, which result in total failure of communication, e.g., “word salad” or mutism.

## **P4 Excitement**

OBSERVATION

Can the patient sit still?

Does the patient get over excited or restless?

## **P4 Excitement**

Hyperactivity as reflected in accelerated motor behaviour, heightened responsiveness to stimuli, hypervigilance, or excessive mood lability.

Basis for rating: Behaviour manifestations as well as reports of behaviour by primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Tends to be slightly agitated, hypervigilant, or mildly over-aroused throughout the interview, but without distinct episodes of excitement or marked mood lability. Speech may be slightly pressured.
4. Moderate – Agitation or over-arousal is clearly evident throughout the interview, affecting speech and general mobility, or episodic outbursts occur sporadically.
5. Moderate-Severe – Significant hyperactivity or frequent outbursts of motor activity are observed, making it difficult for the patient to sit still for longer than several minutes at any given time.
6. Severe – Marked excitement dominates the interview, delimits attention, and to some extent affects personal functions such as eating and sleeping.
7. Extreme – Marked excitement seriously interferes in eating and sleeping and makes interpersonal interactions virtually impossible. Acceleration of speech and motor activity may result in incoherence and exhaustion.

### **P7 Hostility**

#### OBSERVATION

Is the patient sarcastic / irritable / verbally abusive / violent?

### **P7 Hostility**

Verbal and non-verbal expressions of anger and resentment, including sarcasm, passive-aggressive behaviour, verbal abuse, and assaultiveness.

Basis for rating: Interpersonal behaviour observed during the interview and reports by primary care workers and family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Indirect or restrained communication of anger, such as sarcasm, disrespect, hostile expressions, and occasional irritability.
4. Moderate – Presents an overtly hostile attitude, showing frequent irritability and direct expression of anger or resentment.
5. Moderate-Severe – Patient is highly irritable and occasionally verbally abusive and threatening.
6. Severe – Uncooperativeness and verbal abuse or threats notably influence the interview and seriously impact upon social relations. Patient may be violent and destructive but is not physically assaultive toward others.
7. Extreme – Marked anger results in extreme uncooperativeness, precluding other interactions, or in episode(s) of physical assault toward others.

### **N1 Blunted Affect**

#### OBSERVATION

Does the patient have stilted / forced / artificial facial expressions?

### **N1 Blunted affect**

Diminished emotional responsiveness as characterised by a reduction in facial expression, modulation of feelings, and communicative gestures.

Basis for rating: Observation of physical manifestations of affective tone and emotional responsiveness during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Changes in facial expression and communicative gestures seem to be stilted, forced, artificial, or lacking in modulation.
4. Moderate – Reduced range of facial expression and few expressive gestures result in a dull appearance.
5. Moderate-Severe – Affect is generally ‘flat’, with only occasional changes in facial expression and a paucity of communicative gestures.
6. Severe – Marked flatness and deficiency of emotions exhibited most of the time. There may be unmodulated extreme affective discharges, such as excitement, rage, or inappropriate uncontrolled laughter.
7. Extreme – Changes in facial expression and communicative gestures are virtually absent. Patient seems to constantly show a barren or ‘wooden’ expression.

### **N3 Poor Rapport**

#### OBSERVATION

Does the patient show lack of openness in conversation, interest or involvement with the interviewer?

Does the patient avoid eye or face contact?

Does the patient seem bored?

### **N3 Poor rapport**

Lack of empathy, openness in conversation, and a sense of closeness, interest, or involvement with the interviewer. This is evidenced by interpersonal distancing and reduced verbal and non-verbal communication.

Basis for rating: Interpersonal behaviour during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.

3. Mild – Conversation is characterised by stilted, strained or artificial tone. It may lack emotional depth or tend to remain on an impersonal, intellectual plane.
4. Moderate – Patient typically is aloof, with interpersonal distance quite evident. Patient may answer questions mechanically, act bored, or express disinterest.
5. Moderate-Severe – Disinvolvement is obvious and clearly impedes the productivity of the interview. Patient may tend to avoid eye of face contact.
6. Severe – Patient is highly indifferent, with marked interpersonal distance. Answers are perfunctory, and there is little non-verbal evidence of involvement. Eye and face contact are frequently avoided.
7. Extreme – Patient is totally uninvolved with the interviewer. Patient appears to be completely indifferent and consistently avoids verbal and non-verbal interactions during the interview.

### **N6 Lack of Spontaneity and Flow of Conversation**

#### OBSERVATION

Does the patient have diminished fluidity and productivity of the verbal-interaction process?

Does the patient use his initiative?

Does the patient need direct questions?

### **N6 Lack of spontaneity and flow of conversation**

Reduction in the normal flow of communication associated with apathy, avolition, defensiveness, or cognitive deficit. This is manifested by diminished fluidity and productivity of the verbal interactional process.

Basis for rating: Cognitive-verbal processes observed during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Conversation shows little initiative. Patient’s answers tend to be brief and unembellished, requiring direct and leading questions by the interviewer.
4. Moderate – Conversation lacks free flow and appears uneven or halting. Leading questions are frequently needed to elicit adequate responses and proceed with conversation.
5. Moderate-Severe – Patient shows a marked lack of spontaneity and openness, replying to the interviewer’s questions with only one or two brief sentences.
6. Severe – Patient’s responses are limited to a few words or shot phrases intended to avoid or curtail communication. (E.g., “I don’t know”, “I’m not a liberty to say”.) Conversation is seriously impaired as a result, and the interview is highly unproductive.
7. Extreme – Verbal output is restricted to, at most, an occasional utterance, making conversation not possible.

## **N7 Stereotyped Thinking**

### OBSERVATION

Is the patient rigid or repetitious or show evidence of barren thought content?

## **N7 Stereotyped thinking**

Decreased fluidity, spontaneity, and flexibility of thinking, as evidence in rigid, repetitious, or barren thought content.

Basis for rating: Cognitive-verbal processes observed during the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Some rigidity shown in attitudes or beliefs. Patient may refuse to consider alternative positions or have difficulty in shifting from one idea to another.
4. Moderate – Conversation revolves around a recurrent theme, resulting in difficulty in shifting to a new topic.
5. Moderate-Severe – Thinking is rigid and repetitious to the point that, despite the interviewer's efforts, conversation is limited to only two or three dominating topics.
6. Severe – Uncontrolled repetition of demands, statements, ideas, or questions which severely impairs conversation.
7. Extreme – Thinking, behaviour, and conversation are dominated by constant repetition of fixed ideas or limited phrases, leading to gross rigidity, inappropriateness, and restrictiveness of patient's communication.

## **G4 Tension**

### OBSERVATION

Look for physical manifestations resulting from anxiety.

## **G4 Tension**

Overt physical manifestations of fear, anxiety, and agitation, such as stiffness, tremor, profuse sweating, and restlessness.

Basis for rating: Verbal report attesting to anxiety and, thereupon, the severity of physical manifestations of tension observed during the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Posture and movements indicate slight apprehensiveness, such as minor rigidity, occasional restlessness, shifting of position, or fine rapid hand tremor.
4. Moderate – A clearly nervous appearance emerges from various manifestations, such as fidgety behaviour, obvious hand tremor, excessive perspiration, or nervous mannerisms.

5. Moderate-Severe – Pronounced tension is evidenced by numerous manifestations, such as nervous shaking, profuse sweating, and restlessness, but conduct in the interview is not significantly affected.
6. Severe – Pronounced tension to the point that interpersonal interactions are disrupted. The patient, for example, may be constantly fidgeting, unable to sit still for long, or show hyperventilation.
7. Extreme – Marked tension is manifested by signs of panic or gross motor acceleration, such as rapid restless pacing and inability to remain seated for longer than a minute, which makes sustained conversation not possible.

### **G5 Mannerisms and Posturing**

#### OBSERVATION

Does the patient have unnatural movements or posture?

#### **G5 Mannerisms and posturing**

Unnatural movements or posture as characterised by an awkward, stilted, disorganised, or bizarre appearance.

Basis for rating: Observation of physical manifestations during the course of the interview as well as reports from primary care workers and family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Slight awkwardness in movements or minor rigidity of posture.
4. Moderate – Movements are notably awkward or disjointed, or an unnatural posture is maintained for brief periods.
5. Moderate-Severe – Occasional bizarre rituals or contorted posture are observed, or an abnormal position is sustained for extended periods.
6. Severe – Frequent repetition of bizarre rituals, mannerisms, or stereotyped movements, or a contorted posture is sustained for extended periods.
7. Extreme – Functioning is seriously impaired by virtually constant involvement in ritualistic, manneristic, or stereotyped movements or by an unnatural fixed posture which is sustained most of the time.

### **G7 Motor Retardation**

#### OBSERVATION

Does the patient give slowing or lessening of speech or movements?

#### **G7 Motor retardation**

Reduction in motor activity as reflected in slowing or lessening of movements and speech, diminished responsiveness to stimuli, and reduced body tone.

Basis for rating: Manifestations during the course of the interview as well as reports by primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Slight but noticeable diminution in rate of movements and speech. Patient may be somewhat unproductive in conversation and gestures.
4. Moderate – Patient is clearly slow in movements, and speech may be characterised by poor productivity, including long response latency, extended pauses, or slow pace.
5. Moderate-Severe – A marked reduction in motor activity renders communication highly unproductive or delimits functioning in social and occupational situations. Patient can usually be found sitting or lying down.
6. Severe – Movements are extremely slow, resulting in a minimum of activity and speech. Essentially the day is spent sitting idly or lying down.
7. Extreme – Patient is almost completely immobile and virtually unresponsive to external stimuli.

### **G8 Uncooperativeness**

#### OBSERVATION

Does the patient refuse to comply with significant others?

### **G8 Uncooperativeness**

Active refusal to comply with the will of significant others, including the interviewer, hospital staff, or family, which may be associated with distrust, defensiveness, stubbornness, negativism, rejection of authority, hostility, or belligerence.

Basis for rating: Interpersonal behaviour observed during the course of the interview as well as reports by primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Complies with an attitude of resentment, impatience, or sarcasm. May inoffensively object to sensitive probing during the interview.
4. Moderate – Occasional outright refusal to comply with normal social demands, such as making own bed, attending scheduled programs, etc. The patient may project a hostile, defensive, or negative attitude but usually can be worked with.
5. Moderate-Severe – Patient frequently is in compliant with the demands of their milieu and may be characterised by others and an ‘outcast’ or having ‘a serious attitude problem’. Uncooperativeness is reflected in obvious defensiveness or irritability with the interviewer and possible unwillingness to address many questions.

6. Severe – Patient is highly uncooperative, negativistic, and possibly also belligerent. Refuses to comply with most social demands and may be unwilling to initiate or conclude the full interview.
7. Extreme – Active resistance seriously impacts on virtually all major areas of functioning. Patient may refuse to join in any social activities, tend to personal hygiene, converse with family or staff, and participate briefly in an interview.

### **G9 Unusual Thought Content**

#### OBSERVATION

Does the patient have strange / fantastic / bizarre ideas that range from being remote / atypical to being disordered / illogical / absurd?

### **G9 Unusual thought content**

Thinking characterised by strange, fantastic, or bizarre ideas, ranging from those which are remote or atypical to those which are distorted, illogical, and patently absurd.

Basis for rating: Thought content expressed during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Thought content is somewhat peculiar, or idiosyncratic, or familiar ideas are framed in an odd context.
4. Moderate – Ideas are frequently distorted and occasionally seem quite bizarre.
5. Moderate-Severe – Patient expresses many strange and fantastic thoughts (e.g., being the adopted son of a king, being an escapee from death row) or some which are patently absurd (e.g., having hundreds of children, receiving radio messages from outer space through a tooth filling).
6. Severe – Patient expresses many illogical or absurd ideas or some which have a distinctly bizarre quality (e.g., having three heads, being a visitor from another planet).
7. Extreme – Thinking is replete with absurd, bizarre, and grotesque ideas.

### **G11 Poor Attention**

#### OBSERVATION

What sorts of things do they do during the day?

How is their concentration

Are they distracted by things easily?

### **G11 Poor attention**

Failure in focused alertness manifested by poor concentration, distractibility from internal and external stimuli, and difficulty in harnessing, sustaining, or shifting focus to new stimuli.

Basis for rating: Manifestations during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Limited concentration evidenced by occasional vulnerability to distraction or faltering attention toward the end of the interview.
4. Moderate – Conversation is affected by the tendency to be easily distracted, difficulty in long sustaining concentration on a given topic, or problems in shifting attention to new topics.
5. Moderate-Severe – Conversation is seriously hampered by poor concentration, distractibility, and difficulty in shifting focus appropriately.
6. Severe – Patient’s attention can be harnessed for only brief moments or with great effort, due to marked distraction by internal or external stimuli.
7. Extreme – Attention is so disrupted that even brief conversation is not possible.

### **G13 Disturbance of volition**

OBSERVATION

Does the client appear to have control over his or her thoughts and actions?

### **G13 Disturbance of volition**

Disturbances in the wilful initiation, sustenance, and control of one’s thoughts, behaviour, movements, and speech.

Basis for rating: Thought content and behaviour manifested in the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – There is evidence of some indecisiveness in conversation and thinking, which may impede verbal and cognitive processes to a minor extent.
4. Moderate – Patient is often ambivalent and shows clear difficulty in reaching decisions. Conversation may be marred by alternation in thinking, and in consequence verbal and cognitive functioning are clearly impaired.
5. Moderate-Severe – Disturbance of volition interferes in thinking as well as behaviour. Patient shows pronounced indecision that impedes the initiation and continuation of social and motor activities, and which also may be evidenced in halting speech.
6. Severe – Disturbance of volition interferes in the execution of simple, automatic motor functions, such as dressing and grooming, and markedly effects speech.
7. Extreme – Almost complete failure of volition is manifested by gross inhibition of movement and speech, resulting in immobility and/or mutism.

## **G14 Poor Impulse Control**

### OBSERVATION

Does the patient exhibit impulsive episodes of threatening, destructive or verbally abusive behaviour without concern about the consequences?

## **G14 Poor impulse control**

Disordered regulation and control of action on inner urges, resulting in sudden, unmodulated, arbitrary, or misdirected discharge of tension and emotion without concern about the consequences.

Basis for rating: Behaviour during the course of interview and reported by primary care workers or family.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Patient tends to be easily angered or frustrated when facing stress or denied gratification but rarely acts on impulse.
4. Moderate – Patient gets angered and verbally abusive with minimal provocation. May be occasionally threatening, destructive, or have one or two episodes involving physical confrontation or a minor brawl.
5. Moderate-Severe – Patient exhibits repeated impulse episodes involving verbal abuse, destruction of property, or physical threats. There may be one or two episodes involving serious assault, for which the patient requires isolation, physical restraint, or p.r.n sedation
6. Severe – Patient frequently is impulsively aggressive, threatening, demanding and destructive, without any apparent consideration of the consequences. Shows assaultive behaviour and may also be sexually offensive and possibly respond behaviourally to hallucinatory commands.
7. Extreme – Patient exhibits homicidal attacks, sexual assaults, repeated brutality, or self-destructive behaviour. Requires constant direct supervision or external constraints because of inability to control dangerous impulses.

## **G15 Preoccupation**

### OBSERVATION

Does the patient seem self-absorbed, as if day dreaming or involved with internal experiences?

Does s/he talk / mutter / laugh to him / herself?

Are they an attentive interviewee?

## **G15 Preoccupation**

Absorption with internally generated thoughts and feelings and with autistic experiences to the detriment of reality orientation and adaptive behaviour.

Basis of rating: Interpersonal behaviour observed during the course of the interview.

1. Absent – Definition does not apply.
2. Minimal – Questionable pathology; may be at the upper extreme of normal limits.
3. Mild – Excessive involvement with personal needs or problems, such that conversation veers back to egocentric themes and there is diminished concern exhibited towards others.
4. Moderate – Patient occasionally appears self-absorbed, as if day dreaming or involved with internal experiences, which interferes with communication to a minor extent.
5. Moderate-Severe – Patient often appears to be engaged in autistic experiences, as evidenced by behaviours that significantly intrude on social and communicational functions, such as the presence of a vacant stare, muttering or talking to oneself, or involvement with stereotyped motor patterns.
6. Severe – Marked preoccupation with autistic experiences, which seriously delimits concentration, ability to converse, and orientation the milieu. The patient frequently may be observed smiling, laughing, muttering, or shouting to themselves.
7. Extreme – Gross absorption with autistic experiences, which profoundly affects all major realms of behaviour. The patient constantly may be responding verbally and behaviourally to hallucinations and show little awareness of other people or the external milieu.

### Appendix I: Impacts of Events Scale - Revised

0 = Not at all; 1 = A little bit; 2 = Moderately; 3 = Quite a bit; 4 = Extremely						
1. Any reminder brought back feelings about it.	0	1	2	3	4	5
2. I had trouble staying asleep.	0	1	2	3	4	5
3. Other things kept making me think about it.	0	1	2	3	4	5
4. I felt irritable and angry.	0	1	2	3	4	5
5. I avoided letting myself get upset when I thought about it or was reminded of it.	0	1	2	3	4	5
6. I thought about it when I didn't mean to.	0	1	2	3	4	5
7. I felt as if it hadn't happened or wasn't real..	0	1	2	3	4	5
8. I stayed away from reminders of it.	0	1	2	3	4	5
9. Pictures about it popped into my mind.	0	1	2	3	4	5
10. I was jumpy and easily startled.	0	1	2	3	4	5
11. I tried not to think about it.	0	1	2	3	4	5
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.	0	1	2	3	4	5
13. My feelings about it were kind of numb.	0	1	2	3	4	5
14. I found myself acting or feeling like I was back at that time.	0	1	2	3	4	5
15. I had trouble falling asleep.	0	1	2	3	4	5
16. I had waves of strong feelings about it.	0	1	2	3	4	5
17. I tried to remove it from my memory	0	1	2	3	4	5
18. I had trouble concentrating.	0	1	2	3	4	5
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	0	1	2	3	4	5
20. I had dreams about it	0	1	2	3	4	5
21. I felt watchful and on-guard.	0	1	2	3	4	5
22. I tried not to talk about it.	0	1	2	3	4	5

**Total IES-R score:** \_\_\_\_\_

## Appendix J: Trauma History Questionnaire

The following is a series of questions about serious or traumatic life events. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about the occurrence of such events, and reactions to them, will help us to develop programs for prevention, education, and other services. The questionnaire is divided into questions covering crime experiences, general disaster and trauma questions, and questions about physical and sexual experiences.

For each event, please indicate (circle) whether it happened, and if it did, the number of times and your approximate age when it happened (give your best guess if you are not sure). Also note the nature of your relationship to the person involved, and the specific nature of the event, if appropriate.

<b>Crime-Related Events</b>	<b>Yes/No</b>	<b>If Yes</b>	
		<b># of Times</b>	<b>Approx age</b>
Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?			
Has anyone ever attempted to rob you or actually robbed you (i.e. stolen your personal belongings)?			
Has anyone ever attempted to or succeeded in breaking into your home when you <u>were</u> 't there?			
Has anyone ever tried to or succeeded in breaking into your home while you <u>were</u> there?			
<b>General Disaster and Trauma</b>			
Have you ever had a serious accident at work, in a car or somewhere else? <u>If yes</u> , please specify			
Have you ever experienced a natural disaster such as a tornado, hurricane, flood, major earthquake, etc., where you felt you or your loved ones were in danger of death or injury? <u>If yes</u> , please specify			
Have you ever experienced a "man-made" disaster such as a train crash, building collapse, bank robbery, fire, etc., where you felt you or your loved ones were in danger of			

death or injury? <u>If yes</u> , please specify			
Have you ever been exposed to dangerous chemicals or radioactivity that might threaten your health?			
Have you ever been in any other situation in which you were seriously injured? <u>If yes</u> , please specify			
Have you ever been in any other situation in which you feared you <u>might</u> be killed or seriously injured? <u>If yes</u> , please specify			
Have you ever seen someone seriously injured or killed? <u>If yes</u> , please specify who			
Have you ever seen dead bodies (other than at a funeral) or had to handle dead bodies for any reason? <u>If yes</u> , please specify			
Have you ever had a close friend or family member murdered or killed by a drunk driver? <u>If yes</u> , please specify relationship (e.g., mother, grandson etc)			
Have you ever had a spouse or romantic partner or child die? <u>If yes</u> , please specify relationship			
Have you ever had a serious or life-threatening illness? <u>If yes</u> , please specify			
Have you ever received news of a serious injury, life-threatening illness or unexpected death of someone close to you? <u>If yes</u> , please indicate			
Have you ever had to engage in combat while in military service in an official or unofficial			

war zone? <u>If yes</u> , please indicate where			
<b><u>Physical and Sexual Experiences</u></b>			
Has anyone ever made you have intercourse, oral or anal sex against your will? <u>If yes</u> , please indicate nature of relationship with person (e.g., stranger, friend, relative, parent, sibling)			
Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat? <u>If yes</u> , please indicate nature of relationship with person (e.g., stranger, friend, relative, parent, sibling)			
Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have unwanted sexual contact?			
Has anyone, including family members or friends, ever attacked you with a gun, knife or some other weapon?			
Has anyone, including family members or friends, ever attacked you <u>without</u> a weapon and seriously injured you?			
Has anyone in your family ever beaten, "spanked" or pushed you hard enough to cause injury?			
<b><u>Other Events</u></b>			
Have you experienced any other extraordinarily stressful situation or event that is not covered above? <u>If yes</u> , please specify			

## Appendix K: Psychiatric Experiences Questionnaire

Below are examples of things some people have experienced as patients in a psychiatric setting. Some of these items include events that happened while in a hospital, while being transported to the hospital, or while attending sessions in an outpatient or day hospital setting. For this questionnaire, we are interested in knowing about your experiences in any psychiatric setting. Please read carefully each “bold” item, then circle “yes” or “no” to indicate whether you experienced the event. If you circle “no” then go on to the next item. If you circle “yes” then please record the number of times the event happened to you, about when the first and last time it happened, rate how much distress you experienced, and rate how often you have felt distressed since the event.

**1. Being handcuffed and transported in a police car?** Yes    No

If yes, did your response involve intense fear, helplessness, or horror? Yes    No

If yes, did your response involve: humiliation? Yes    No

distress? Yes    No

loss of trust in psychiatric staff Yes    No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**2. Being “taken down” by police or psychiatric staff?** Yes    No

If yes, did your response involve intense fear, helplessness, or horror? Yes    No

If yes, did your response involve: humiliation? Yes    No

distress? Yes    No

loss of trust in psychiatric staff Yes    No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**3. Witnessing another patient being “taken down”?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror?

Yes No

If yes, did your response involve: humiliation?

Yes No

distress?

Yes No

loss of trust in psychiatric staff

Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**4. Being placed in seclusion?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror?

Yes No

If yes, did your response involve: humiliation?

Yes No

distress?

Yes No

loss of trust in psychiatric staff

Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**5. Being put in restraints of any kind?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror?

Yes No

If yes, did your response involve: humiliation?

Yes No

distress?

Yes No

loss of trust in psychiatric staff

Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**6. Being strip-searched?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror?

Yes No

If yes, did your response involve: humiliation?

Yes No

distress?

Yes No

loss of trust in psychiatric staff

Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**7. Having medication used as a threat or as punishment?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**8. Having commitment used as a threat or as punishment?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**9. Being forced to take medications against your will?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**10. Experiencing any other form of excessive physical force by staff?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**11. Experiencing staff calling you names (i.e. “crazy,” “stupid”), badgering, or bullying you in some other verbal way?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**12. Heard staff calling other patients names, badgering, or bullying them in some other verbal way?** Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_



If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**15. Being around other patients who were very violent or frightening in other ways?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**16. Being threatened with physical violence?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**17. Experiencing a physical assault (e.g., being hit, punched, slapped, kicked, strangled, burned, etc.) by a staff member while in the psychiatric facility?**

	Yes	No
If yes, did your response involve intense fear, helplessness, or horror?	Yes	No
If yes, did your response involve: humiliation?	Yes	No
distress?	Yes	No
loss of trust in psychiatric staff	Yes	No

If yes, about how *many* times has this happened? \_\_\_\_\_  
 If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_  
 If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**18. Experiencing a physical assault (e.g., being hit, punched, slapped, kicked, strangled, burned, etc.) by another patient while in the psychiatric facility?**

	Yes	No
If yes, did your response involve intense fear, helplessness, or horror?	Yes	No
If yes, did your response involve: humiliation?	Yes	No
distress?	Yes	No
loss of trust in psychiatric staff	Yes	No

If yes, about how *many* times has this happened? \_\_\_\_\_  
 If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_  
 If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**19. Witnessing another patient being physically assaulted by a staff member?**

	Yes	No
If yes, did your response involve intense fear, helplessness, or horror?	Yes	No
If yes, did your response involve: humiliation?	Yes	No
distress?	Yes	No
loss of trust in psychiatric staff	Yes	No

If yes, about how *many* times has this happened? \_\_\_\_\_  
 If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_  
 If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**20. Witnessing another patient being physically assaulted by another patient?**

	Yes	No
If yes, did your response involve intense fear, helplessness, or horror?	Yes	No
If yes, did your response involve: humiliation?	Yes	No
distress?	Yes	No
loss of trust in psychiatric staff	Yes	No

If yes, about how *many* times has this happened? \_\_\_\_\_  
 If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_  
 If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**21. Experiencing intrusive and unwanted sexual advances while in the psychiatric facility (e.g., someone talking to you about having sex, touching your body)?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**22. Experiencing a sexual assault (e.g., pressure, threats, or force to engage in any type of unwanted sexual contact) by a staff member in the psychiatric setting?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**23. Experiencing a sexual assault (e.g., pressure, threats, or force to engage in any type of unwanted sexual contact) by another patient in the psychiatric setting?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**24. Witnessing another patient being sexually assaulted (e.g., pressure, threats, or force to engage in any type of unwanted sexual contact) by a staff member?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_



If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**27. Engaging in any type of consensual sexual activity with another patient while in the psychiatric setting?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**28. Engaging in any type of consensual sexual activity with a staff member while in the psychiatric setting?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**29. Witnessing a staff member being physically assaulted by a patient?**

Yes No

If yes, did your response involve intense fear, helplessness, or horror? Yes No

If yes, did your response involve: humiliation? Yes No

distress? Yes No

loss of trust in psychiatric staff Yes No

If yes, about how *many* times has this happened? \_\_\_\_\_

If yes, about when was the *first* time this happened (what year)? \_\_\_\_\_

If yes, about when was the *last* time this happened (what year)? \_\_\_\_\_

If yes, think about the *most distressing* event. For the week following this event, how *intense* was your distress?

1	2	3	4	5
Almost None	Mild	Moderate	Severe	Extreme

Since the event until now, how *often* have you experienced distress related to this event?

1	2	3	4	5
Almost Never	Sometimes	Often	Usually	Almost Always

**Other frightening or distressing experiences (Please list)?**

**Of these experiences we have just discussed which one was the worst (i.e., the most upsetting or frightening)?**

**Other comments about the experiences listed above?**

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Please respond to the following questions regarding any of the events that you described above regarding your psychiatric treatment. For each item, please indicate the degree to which the statement is true from:

1=not at all, 2=a little bit, 3=somewhat, 4=quite a bit, 5=extremely

---

1. At the worst, how **unsafe** have you felt during your treatment? 1 2 3 4 5
  2. At the worst, how **helpless** have you felt during your treatment? 1 2 3 4 5
  3. At the worst, how **frightened** have you felt during your treatment? 1 2 3 4 5
  4. Did you **ever** find yourself feeling very upset about events that happened during your psychiatric treatment? 1 2 3 4 5
- How long did this last (in hours, days, weeks, months or years)?
5. In general, how well have you followed specific psychiatric recommendations (e.g., medications, therapy, etc.)? 1 2 3 4 5
  6. How many times have you been hospitalized on a psychiatric unit? \_\_\_\_\_
  7. How old were you the first time you were hospitalized on a psychiatric unit? \_\_\_\_\_
  8. Is there a mental health clinic or psychiatric hospital you would **never** want to go back to? Yes No
  9. If you experienced a very distressing event during your psychiatric treatment, did you tell anyone on staff of a mental health clinic or psychiatric hospital about your experiences? Yes No
  10. If you did tell, whom did you tell (i.e., what was their job)? \_\_\_\_\_
  11. Has anyone on staff of a mental health clinic or psychiatric hospital ever asked you about any of these experiences? Yes No
  12. If you were to tell someone on staff of a mental health clinic or psychiatric hospital about any of these experiences do you expect that they would respond sympathetically? Yes No
  13. In your opinion have psychiatric treatment facilities become safer since you first started receiving your psychiatric treatment? Yes No

14. How safe do you expect to be on a psychiatric unit? 1 2 3 4 5

15. How free from racial bias or prejudice do you expect to be on a psychiatric unit?  
1 2 3 4 5

16. How well respected by staff do you expect to be on a psychiatric unit?  
1 2 3 4 5

17. To what degree do you expect your race or ethnicity to influence the care you receive on a psychiatric unit? 1 2 3 4 5

18. Think back to times when you were hospitalized on a psychiatric unit and procedures such as seclusion or restraint were used on you—to what degree do you think those procedures were necessary? 1 2 3 4 5

19. To what extent do you think procedures such as seclusion and restraint should be used in psychiatric settings? 1 2 3 4 5

20. To what extent do you think the events we talked about earlier (“worst event”) have made your mental illness worse? 1 2 3 4 5

21. To what extent do you think the events we talked about earlier (“worst event”) have made you reluctant to participate in mental health treatment?  
1 2 3 4 5

## Appendix L: Psychosis Attachment Measure

We all differ in how we relate to other people. This questionnaire lists different thoughts, feelings and ways of behaving in relationships with others.

### PART A

Thinking generally about how you relate to other key people in your life, please use a tick to show how much each statement is like you. Key people could include family members, friends, partner or mental health workers.

There are no right or wrong answers

	Not at all	A little	Quite a bit	Very much
1. I prefer not to let other people know my 'true' thoughts and feelings.	(..)	(..)	(..)	(..)
2. I find it easy to depend on other people for support with problems or difficult situations.	(..)	(..)	(..)	(..)
3. I tend to get upset, anxious or angry if other people are not there when I need them.	(..)	(..)	(..)	(..)
4. I usually discuss my problems and concerns with other people.	(..)	(..)	(..)	(..)
5. I worry that key people in my life won't be around in the future.	(..)	(..)	(..)	(..)
6. I ask other people to reassure me that they care about me.	(..)	(..)	(..)	(..)
7. If other people disapprove of something I do, I get very upset.	(..)	(..)	(..)	(..)
8. I find it difficult to accept help from other people when I have problems or difficulties.	(..)	(..)	(..)	(..)
9. It helps to turn to other people when I'm stressed.	(..)	(..)	(..)	(..)
10. I worry that if other people get to know me better, they won't like me.	(..)	(..)	(..)	(..)

- |  |      |      |      |      |
|--|------|------|------|------|
| 11. When I'm feeling stressed, I prefer being on my own to being in the company of other people. | (..) | (..) | (..) | (..) |
| 12. I worry a lot about my relationships with other people.                                      | (..) | (..) | (..) | (..) |
| 13. I try to cope with stressful situations on my own.   | (..) | (..) | (..) | (..) |
| 14. I worry that if I displease other people, they won't want to know me anymore.                | (..) | (..) | (..) | (..) |
| 15. I worry about having to cope with problems and difficult situations on my own.               | (..) | (..) | (..) | (..) |
| 16. I feel uncomfortable when other people want to get to know me better.                        | (..) | (..) | (..) | (..) |

## PART B

In answering the previous questions, what relationships were you thinking about?

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(E.g., relationship with mother, father, sister, brother, husband, wife, friend, romantic partner, mental health workers etc)

### Appendix M: Recovery Style Questionnaire

1. There was a gradual build up to me becoming ill	True	False
2. My illness is not part of my personality	True	False
3. I am responsible for what I think when I am ill	True	False
4. I am not interested in my illness	True	False
5. My illness taught me new things about myself	True	False
6. I need help to solve the problems caused by my illness	True	False
7. My illness was caused by my difficulties in coping with life	True	False
8. I have had a nervous breakdown	True	False
9. I can see positive aspects to my illness	True	False
10. My illness has had a strong impact on my life	True	False
11. I am not frightened of mental illness	True	False
12. I like some of the experiences I had when I was ill	True	False
13. My illness has helped me to find a more satisfying life	True	False
14. My illness came on suddenly and went suddenly	True	False
15. My illness is a part of me	True	False
16. I am not responsible for my actions when I am ill	True	False
17. I am curious about my illness	True	False
18. I understand myself better because of my illness	True	False
19. I can manage the problems caused by my illness alone	True	False
20. Others are to blame for my illness	True	False
21. I have had a medical illness	True	False
22. Nothing good came out of my illness	True	False

23. My illness has had little effect on my life	True	False
24. I am frightened of mental illness	True	False
25. I didn't like any of the unusual experiences I had when I was ill	True	False
26. It's hard to find satisfaction with life following my illness	True	False
27. My illness came on very suddenly	True	False
28. My illness is alien to me	True	False
29. I am responsible for my thoughts and feelings when I am ill	True	False
30. I don't care about my illness now that I'm well	True	False
31. I want to be the person I was before my illness	True	False
32. Others' can help me solve my problems	True	False
33. My illness was caused by stress in my life	True	False
34. I have suffered an emotional breakdown	True	False
35. Being ill had good parts to it	True	False
36. I'm not really interested in my illness	True	False
37. I liked some of the unusual ideas I had when I was ill	True	False
38. My life has become more satisfying since my illness	True	False
39. My attitude to mental illness is better now, than before I was ill	True	False