INTENSIVE HOME-VISITING PROMOTES POSITIVE USER-VIEWS RELATIVE TO GENERIC POSTNATAL SERVICES

Short title: User-views and home-visitation

ABSTRACT

Background/rationale: The (mostly North American) effectiveness literature relating to pre- and postnatal nurse home visitation contains little information on client-satisfaction, despite its potential utility for shedding light on both basic service-acceptability and the processes underlying effectiveness.

Aim(s): To longitudinally compare (UK-based) user-perceptions of an intensive home-visiting intervention with those of women receiving generic postnatal services.

Methods: Quasi-experimental cohort study of 637 families living in selected disadvantaged communities in Glasgow, Scotland and with an index child born between mid-2001 and 2002. User-views were collected from a sub-sample of 287 (164 intervention, 123 comparison) families who completed three survey-based assessments over the first 18-months of the child’s life. Three key measures were used: at baseline, 6- and 18-month assessments, Satisfaction with levels of health visitor support; and Attitudes to health visitors (concentrating on trust, quality of communication and utility of advice). At 18-months only: Comparison of the service relative to initial expectations.

Results: Repeated measures ANOVA revealed a significant effect of both group (p=0.047) and assessment occasion (p<.001) for the satisfaction measure, but no interaction between the two. Similar analysis revealed an effect of both group (p=0.001) and occasion (p<.001) but no interaction effect for attitudes to the service. Significantly more intervention families rated the service as ‘better than expected’ compared to comparison families (26.6% gap; 95% confidence intervals for the difference = 16 to 37%; p<.001).

Conclusions: Intensive home-visiting can deliver enhanced client-satisfaction over the first eighteen months of a child’s life compared to generic services. Whilst qualitative data from the same study points to the validity of these observations, replication is required from cognate initiatives (e.g. Sure Start) as is further work to relate service-evaluations to substantive health and related outcomes.

INTRODUCTION

The UK government’s twin policy agenda of tackling health inequalities and child poverty has resulted in a range of initiatives aimed at developing and integrating preschool services with an emphasis on disadvantaged groups and communities. Initiatives that have employed health visitors as key workers have been informed by a largely North American evidence base that suggests home visitation by public health nurses can be an effective strategy for delivering postnatal services and for improving a range of health and related outcomes for vulnerable children and families. Recent
reviews have noted, however, that a major gap in the effectiveness literature relates to user-perceptions including client-satisfaction\(^9,10\). User-views are important for the evaluation of new health initiatives as they have the potential to give insights into the basic acceptability of the service and the processes underlying effectiveness\(^10\). This paper proceeds from the evaluation of ‘Starting Well’, a recent UK home-visiting intervention, and details attempts to generate comparative, meaningful data on service-user perceptions and to link these to programme effectiveness.

‘Starting Well’ is an evidence-based home-visiting intervention commissioned in late 2000 by the Scottish Executive as part of a wider programme to find innovative ways of tackling health inequalities\(^6,11\). The project has been active in two socio-economically disadvantaged communities in Glasgow and engages all families with newborn via a team of trained health visitors, nursery nurses and lay workers who deliver an intensive home-based service that augments routine provision. Key service innovations include topic-specific initiatives (home safety, encouraging and modelling play), enhanced support for minority ethnic families and the delivery of a validated parenting skills programme\(^12\). In addition to the home-visiting programme, the project engages each community by attempting to build links between existing pre-school agencies and by developing new resources. The project has been subject to a rigorous and multi-method independent evaluation that has been described elsewhere\(^13\).

The omission of user-views from the US-dominated home-visiting literature is in stark contrast to the wealth of UK data generated since the Griffiths Report\(^14\) recommended the routine incorporation of user-perspectives into the evaluation of health care services. In practice, this has generally meant the use of patient-satisfaction surveys though they have been criticised variously as: lacking conceptual clarity and psychological validity; possessing key methodological limitations; and inevitably producing highly undifferentiated and uncritical responses that tend to support the service status quo\(^15\)\(^-\)\(^17\). Here, we adopted a focussed approach that was informed by a limited but important literature suggesting effective home-visiting relies substantially on the quality of support provided, including key features of the visit interaction\(^10,18,19\). Accordingly, we developed three mother-report survey measures: satisfaction with levels of health visitor support; attitudes to health visitors (concentrating on trust, quality of communication and utility of advice); and comparison of the service relative to initial expectations. Addressing another gap in the literature – a failure to gather longitudinal data on user-satisfaction – we gathered data from both intervention and comparison cohorts on three occasions over the first eighteen months of the child’s life. Our research hypotheses were twofold: first; that the intervention would deliver greater support than generic postnatal services and result in more positive user-perceptions; and second, that perceptions would become less positive over time for both groups\(^18\).

THE STUDY

**Aims:** As part of the independent evaluation, to gather and compare user-views for a group of intervention families with a demographically similar group receiving generic postnatal services.

**Design:** Quasi-experimental cohort study.
Sample/Participants: The intervention population was defined as 646 births attended by health visitors during the recruitment period (01/06/01 to 30/06/02) within two sets of communities operationally defined by postcode boundaries. Of these, 367 (56.8%) consented to evaluation at or around the first postnatal visit. The comparison population was defined as all births (n=675) allocated to health visiting teams based in four health centres in other parts of Glasgow, of which 260 (38.5%) consented to evaluation. This paper concentrates on 287 families (123 comparison, 164 intervention) who took part in all evaluation study assessments. Analysis of varied child, maternal and household characteristics gleaned from self-report and routine data offers little evidence of bias associated with recruitment but some modest evidence that persistence in the study was associated with relative affluence. The characteristics of this sub-sample have been described in detail elsewhere but for the purposes of this paper, may be described as: generally disadvantaged (26.8% of comparison vs. 33.5% of intervention families lived in workless households); and ethnically homogeneous (no comparison vs. 17.7% intervention families from minority ethnic backgrounds). Other salient participant characteristics relate to the proportions of first-time mothers (49.6% comparison, 46.3% intervention) and proportion of low birthweight children (<2500g: 8.9 comparison; 8.5% intervention).

Data collection methods: Mothers completed three self-report surveys: one at around 2-months postpartum (‘baseline’) which included items on basic child, maternal and household characteristics; and further surveys at 6 and 18 months which concentrated on child development and maternal health and service perceptions.

Measures. Three sets of outcome measures were used. The first, health visitor attitudes, was defined as the sum, at each assessment, of responses to seven items (‘I trust my health visitor’/ ‘home visits are useful’/ ‘my health visitor has given me good advice’/ ‘home visits are nosy and intrusive’/ ‘if I have a problem, I can go to my health visitor for advice’/ ‘my health visitor listens to what I say’/ ‘I understand what my health visitor tells me’), each scored using a 5-point Likert scale expressing strength of agreement/disagreement and scored from 0-4 (maximum scale score = 28) so that a high score indicated a more positive response. The scale had good internal reliability at all assessments (Chronbach’s alpha ranging from .86 to .89). The second outcome health visitor satisfaction, was derived at each assessment from the four-point response (ranging from ‘very satisfied’ to ‘not satisfied at all’) to a single item (‘How satisfied are you with the general level of support you have been getting from your health visitor?’) and dichotomised so that ‘very satisfied’ = ‘1’. Finally experience relative to initial expectations was defined as the response to a single item included at the 18-month assessment (“Think back to just before you had your baby. Is your experience of having a health visitor...?”). Responses were dichotomised so that ‘better than expected’ was coded as ‘1’.

Ethical considerations

Data Analysis
RESULTS

Figure 1 plots mean attitude score (together with 95% confidence intervals for the mean) for intervention and comparison groups at each assessment. The intervention mean was more positive at each assessment with within-group means displaying stability between baseline and six-month assessments, then declining by eighteen months. Repeated measures ANOVA revealed a significant effect of group (p=.047) and occasion (p<.001) but no interaction between the two (p=.262). Figure 2 compares the proportion (together with 95% confidence intervals) of each group stating they were ‘very satisfied’ with health visitor support at each assessment. The pattern of results is almost identical to the preceding figure: a higher proportion of intervention families gave positive responses at each assessment and the proportion of positive responses within-group declined over time. Repeated measures analysis again indicated an effect of group (p=.001), occasion (p<.001) but no interaction (p=.176). Finally, figure 3 shows the distribution of responses across group for the eighteen month item relating to perceptions of service relative to initial expectations. More than twice as many intervention families rated the service as ‘better than expected’, a highly significant difference (26.6% gap; 95% confidence intervals for the difference = 16 to 37%; p<.001).

Figure 1
**Figure 2**

Mean attitude score by occasion and group

95% CI for the Mean

**Figure 3**

Percentage very satisfied by occasion and group

95% CI for the Mean

Key: ‘C’ = comparison group; ‘I’ = intervention group
Perceptions of service relative to initial expectations: group comparisons

- Better than
- Same as
- Worse than

Comparison: 20.3% better than, 46.9% same as, 10.6% worse than
Intervention: 47.6% better than, 69.1% same as, 5.5% worse than
DISCUSSION

This study has demonstrated that a range of survey measures tailored to gather user-views of an intensive home visiting initiative discriminated strongly between intervention and comparison groups. Intervention families consistently held more positive attitudes towards health visitors and were more satisfied with levels of health visitor support over the first eighteen months of the child’s life. At the end of this period, they were also more than twice as likely to report that the service had been ‘better than expected’. For both groups, attitudes became less positive and levels of satisfaction declined over time.

A key strength of the measures used relates to their focussed nature: they proceeded from an engagement with the home visiting literature regarding important dimension of the client-practitioner relationship and were closely tailored to the specifics of the intervention. Whilst we did not use established and validated items, the contested nature of the debate relating to existing instruments and their interpretation perhaps justifies this tailored approach. Inevitably the study has limitations. The non-randomised nature of the research design raises the possibility that causally relevant but unobserved characteristics were omitted from analysis. Also, whilst the intervention resulted in demonstrably more intensive contact with health visitors than generic services, it is not clear from these results what aspects of the enhanced service resulted in more positive user views, necessitating, for the moment, a ‘whole package’ conclusion. Finally, the measures used require validation from similar studies.

On the whole, the findings support the literature that informed the construction of key measures. Whilst supportive client-health practitioner relationships that involve good, reciprocal communication, trust, non-invasiveness and advice-giving may be appreciated by all families with newborn, both US and UK-based studies suggest that they are of particular value for more vulnerable groups, including postnatally depressed women and those coping with multiple disadvantage. The study sample, and the communities in which they live, is more heterogeneous than many in the literature but is characterised by high levels of disadvantage and depressive symptoms, which may explain some similarity in results. The decline in positive user-views with time is perhaps explained by qualitative evidence from the same study that suggests reliance on postnatal services inevitably declines as mothers gain confidence in caring for their child. The fact that attitudes and satisfaction with health visitor support were already higher for the intervention group at ‘baseline’ (in effect two months after birth) suggests that intensive engagement with the intervention had already had a positive effect by this time.

The significance of these findings for the development of policy and practice rests on a paradox. On the one hand, they suggest that, compared to generic postnatal services, intensive home-visiting with disadvantaged families delivers a more acceptable and supportive service. This is supported by qualitative evidence from case-studies of intervention families and their health visitors that concluded ‘enhanced support’ (confidence-building; reduced anxiety; reduced isolation; the opportunity to confide; experience of advocacy) was the main perceived benefit of the service. On the other hand, none of the perceptual variables in this paper seem strongly associated with other health-related outcomes (extent of depressive symptoms at six months; quality of the home environment at eighteen months) that, in separate analyses, also showed signs of being positively affected by the intervention. Intensive home-visiting may therefore have a range of modest benefits for disadvantaged families but whether
more positive user-views are causally important for better health-related outcomes, or merely epiphenomenal, remains an unanswered question.

In sum, focussed attitudinal and satisfaction-related questions may have some validity for evaluating the acceptability of new or enhanced health services but the measures reported here require replication from cognate initiatives (e.g. SureStart programmes that employ health visitors) and more research is required that is capable of linking perceived benefits of the type discussed here with programme effectiveness.

REFERENCES


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