Parent-child relationships: are health visitors’ judgements reliable?

Introduction
Direct observation of parent-child relationship is one of the many approaches health visitors use to assess vulnerability, and many desire formal training in this field.\(^1\) The principles of child health surveillance in the UK were laid out in Health for all children.\(^3\) Progressive universalism, its underlying approach, depends on the capacity of primary care workers, particularly health visitors, to identify the level of need of families. Observation may be particularly important in relation to families where the mother has postnatal depression. Although postnatal depression is a risk factor for problems in the child, including disruptive behaviour disorders such as ADHD and conduct disorder,\(^4\) the quality of the parent-child interaction may be more important than the severity of the depression in terms of child outcomes.\(^5\) It therefore makes sense that health visitors should be trained to assess problems in the parent-child relationship rather than simply recognise problems specific to the mother or child. Decisions made by health visitors to allocate time to the families of potentially vulnerable children could be made more robust if they were based at least in part on an assessment of possible problems in the parent-child interaction. An ideal assessment would have both good inter-rater reliability and test-retest reliability – assessments should show good correspondence when performed by two different people or the same person over a period of time. There is no published research on the level of agreement between health visitors in their assessment of problems in the parent-child relationship. There is now good evidence that child ‘vulnerability’ cannot be assessed accurately in many families before the age of one year\(^6\) using current clinical observations, even by experienced practitioners. A more structured assessment of parent-child interaction at about this age may therefore be a more effective approach to recognising need and targeting rational service provision. Furthermore, one year is the youngest age at which attachment behaviours can be assessed reliably\(^7\) and there has been recent interest in the assessment of attachment by health visitors.\(^8\) As part of the development of a comprehensive Parenting Support Framework in Glasgow,\(^9\) a feasibility study has been established in one area, where health visitors are asked to perform a home assessment of the relationship between 13-month-old children and their principal carer, usually the birth mother. The health visitor is asked to complete a brief checklist following a home visit to identify any areas of concern. As part of the implementation of the Parenting Support Framework, health visitors in this area are being trained in the Solihull Approach to infant mental health,\(^10\) which involves the use of the concepts of containment, reciprocity and behaviour management in the support of families with young children. Solihull training for groups of health visitors takes two days, and there is an on-going requirement for supervision by a trained practitioner, usually a clinical psychologist in monthly group meetings. Implementation of this training and the provision of the supervision network is under way in Glasgow, but is not yet fully implemented. This paper describes an exploratory study of assessments by health visitors of video clips that involved parent-child interactions, before and after brief training in observational assessment.

Aim of the study
The aim was to assess the extent to which health visitors agreed about whether parent-child relationships were or were not problematic. It was also hypothesised that training would increase identification of problems in parent-child interactions.

Methods
Data collection
The results presented here were obtained at a one-day training meeting for all of the health visitors in Glasgow West Community Health Care Partnership. Part of the aim of the day was to pilot a tool to assist in identification of problems in the

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current study, report the findings raises fewer ethical problems than not reporting them.

Ethical considerations

Since the study was deemed to be an evaluation of a service development, rather than a research project, it was not possible to obtain NHS ethics review and consent was not sought from the participating health visitors. The response sheets had no identifiers (apart from numbers that allowed the linking of before and after ratings) and it was not possible to trace the participants to ask for consent when the researchers decided to seek publication. The authors believe that, given the novel nature of the study, reporting the findings raises fewer ethical problems than not reporting them.

Results

A total of 32 health visitors rated videos, but not all were able to attend for the whole day. Paired ratings were therefore obtained from 25 health visitors, and the results for these participants are presented below. Of
The level of agreement between the health visitors at the beginning and the end of the training day about whether there might or might not be problems in the parent-child relationship varied (see Table 1). No significant difference in the tendency to identify problems was found between Solihull-trained and non-trained health visitors for any of the videos observed before the training (the smallest significance level for any of the videos was p=0.26 for video 4). A significant difference was found between the health visitor ratings (before and after the training session) for only one of the individual videos, but numbers were small – the biggest change noted between the before and after ratings was from 4/25 to 11/24 health visitors who identified problems in video 4. This represents a reduction in the level of agreement that there were no problems in this video. Using the data from all of the video ratings, there was a highly significant increase in the likelihood that health visitors would identify problems in the relationship after the training. The reasons given by the health visitors for their judgements that there might be problems in the relationships also varied (see Box 1).

There was a significant but modest increase in the number of problems identified at the end of the training session compared with the number identified at the beginning – about one new problem identified for every four videos (mean number=1.92 versus 1.68; exact Wilcoxon signed-rank test, p=0.027). A fairly high level of disagreement for video 4 (72% before, 48% after training – approximating to kappa values of 0.46 and 0.00 respectively). Taken in conjunction with the Mellow Parenting assessments, it appears that there were high levels of agreement when there were either very low or very high frequencies of positive parental interactions with the child, but low levels of negative interactions. On the other hand, it may be that there were lower levels of agreement when there were high levels of both negative and positive interactions. The assessment of problems in the parent-child relationship therefore appears to be reasonably consistent, except when there is a complex mix of positive and negative parenting behaviours. However, it should be noted that only four videos were assessed in this pilot study, and replication with a wider range of material would be desirable before conclusions could be drawn with confidence.

The reasons given by the health visitors for their judgements that there might be problems in the relationships also varied (see Box 1). Here we present the most frequent responses made by health visitors who had and had not been Solihull trained, but numbers were small (16 trained and nine untrained individuals). However, there was a small increase (from 47% to 60%) in the likelihood that health visitors would identify problems in the relationship after the half-hour training delivered by the psychologist and the group work. It appears that this increased level of identification is appropriate, since the training effect was strongest for the videos where negative parenting behaviours were identified in the Mellow Parenting system. Some caution is nevertheless needed in interpreting this.
finding, since the same videos were rated before and after the training session and there may have been a practice effect. In more general terms, it would be inadvisable to draw firm conclusions from these pre- and post-training comparisons in this specific situation.

Further work is needed on the factors, such as caseload demographics, involved in setting thresholds for health visitors in deciding whether or not parent-child relationships are potentially problematic, and this is in progress in Glasgow. Educational techniques to further improve the reliability of these assessments need to be developed.

Objective and specific systems that count individual aspects of interaction rather than give a global impression may be helpful to health visitors in this context. In this study, training appeared to have increased the propensity of the health visitors to identify two specific aspects of problems in the parent-child relationship – failure of the mother to speak to her child and lack of eye contact. There were smaller increases in identification of lack of child vocalisation, lack of soothing behaviour and indiscriminate friendliness from the child. It is possible that some of the health visitors may not have been familiar with the formal description of indiscriminate friendliness (a feature of disorganised attachment behaviour) before the training session and so the increased level of identification could perhaps have been predicted, even though the behaviour was only noted in one video. The video material did not contain any examples of some of the items in the checklist, such as lack of joint attention (a feature of autism24) or rough handling, so it is not possible to draw any conclusions about these problems at this stage. Data is being gathered in the format reported here on routine 13-month contacts in the community with a view to reporting on the identification of these problems in a ‘real life’ setting during 2010.

Conclusion
Identification of problems in the parent-child relationship is a central component of health visiting work, but there have been no published attempts to assess the reliability of this aspect of professional judgement. This paper describes an exploratory study in which health visitors were asked to decide whether there may or may not be problems in videotaped interactions between parents and their one-year old children. Participants generally demonstrated reasonable levels of agreement, except when high frequencies of both positive and negative parenting behaviours were seen in the same video. Brief training on assessing parent-child relationships may increase the tendency of health visitors to identify these problems. Further work is required to confirm these findings, to evaluate the approach in the community, and to develop training programmes which will maximise the consistency of professional judgements about problems in the parent-child relationship.

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References

Key points
- The quality of the parent-child relationship is a strong predictor of outcomes for children, and its assessment is important in identifying families’ need for support.
- This paper explores how well health visitors agree in observational assessments of problems in video-recorded mother-child interactions and the impact of training.
- At a training day, 25 health visitors demonstrated reasonable levels of agreement in judgements of whether there were mother-child relationship problems.
- Brief training may increase the tendency of health visitors to identify these problems, but more research is required into how this might be done most effectively.