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Quality in preventive and health-promoting services: constructing an understanding through process

SINÉAD HANAFIN MSc, PhD, RGN, RM, DPHN[1] and SARAH COWLEY BA, PhD, RGN, RHV, HVT[2]

[1]Head of Research, *Office of the Minister for Children, Dublin, Ireland and* [2]Professor of Community Practice Development, *School of Nursing and Midwifery, King's College London, London, UK*

Correspondence
Sinéad Hanafin
Office of the Minister for Children
Floor 1
St Martin's House
Waterloo Road
Dublin 4
Ireland
E-mail: hanafins@gofree.indigo.ie

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Aim To develop a model of service quality for health-promoting services.
Background In assessing quality, there are difficulties in taking account of the views of multiple stakeholders, the process of the service and the organizational context within which the service is provided. This study set out to address these difficulties.
Methods A collective case study that incorporated national data from public health nurses ($n = 946$; response rate 54%) and public health nurse managers ($n = 24$; response rate 75%) and four case study sites which included data collected from 27 mothers with infants.
Results A model of service quality that takes account of multiple stakeholder constructions, organizational context, service process and consequences was developed.
Conclusions Seven steps of process coupled with five concepts around which quality is judged can provide a basis for understanding service quality in a predominantly preventive and health-promoting type service.

Keywords: community nursing, prevention, process, public health, service quality

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Introduction

Outcome measurement has been the dominant paradigm in assessing the quality of services. This understanding of quality is particularly useful where clearly defined packages of care are delivered, or when services provide specific criteria for referral, admission, treatment and discharge. However, models of quality that depend heavily upon the outcome measurement are more problematic in services where the focus is long term, multi-faceted and complex, particularly those that are palliative, health promoting or preventive in nature. The public health nursing service in Ireland offers an example of the latter, since public health nurses (PHNs) are geographically attached and much of their work is of a health promotion and preventive nature. As the only nurses universally available in community settings in Ireland, a geographical attachment means that while PHNs can be involved in identifying community needs and in initiating and developing community services, a key focus of their work is provision of a direct clinical, health promoting and preventive nursing service to individuals and families (Hanafin 1997, Hanafin *et al.* 2002). This aspect of the work has much in common with community health nurses or health visitors in other parts of the world.

Outcome measurement is problematic in respect of the service provided to families with infants where the focus is almost entirely on prevention. A reduction in the number of children being received into the care of the authorities, for example, might be interpreted as a measure of either good quality [because, it recognizes the right of the child to be cared for by his or her parents (United Nations High Commissioner for Human Rights 1989)] or poor quality because a child has not been removed from a source of risk (HMSO 2003). Where an expected outcome is a change in behaviour, difficulties also emerge because influences on behaviour are multi-factorial and generally take place over time (Sidell *et al.* 1997, Naidoo & Wills 1998, Kendall 2003). In these situations, questions arise in respect of longitudinality, attribution and valid outcome measures (Cowley 1994).

An alternative approach to outcome measurement is to focus on the process of care. In the case of the Irish public health nursing service, however, little is known of the process although a literature has developed in this area elsewhere (Chalmers 1992, 1993, 1994, de la Cuesta 1993, 1994, Byrd 1995, 1997, 1998, Cowley 1995, 1999, Luker & Chalmers 1990, Paavilainen & Åstedt-Kurki 1997). This literature demonstrates that the process of health visiting/public health nursing work is complex, multi-faceted and has many elements that are not immediately explicit (Cowley 1995). In general, an examination of the process of care concentrates on the frequency and time of contact between the client and the professional (Mohammed *et al.* 2005). This is also the case in public health nursing, but two exceptions were identified in the literature on community nursing (Byrd 1995, 1997, 1998) and service quality (Øvretveit 1992). In an attempt to take account of the differences in the focus of the service, Byrd (1995, 1997, 1998) presents three different models, which are:

- voluntary *vs*. required visiting process (Byrd 1995);
- child-focused single home visiting (Byrd 1997); and
- long-term maternal–child home visiting (Byrd 1998).

Øvretveit's (1992) 'flow-process' model identifies eight separate steps (selection, entry, first contact, assessment, intervention, review, closure and follow up). While both these models can provide some understanding of the process of service delivery, some difficulties emerge particularly in respect of their potential to accommodate multiple stakeholders' constructions. Byrd (1995, 1997, 1998), for example, focusses only on home visiting from the perspective of the PHN while Øvretveit (1992) focusses only on the client. Further, Byrd (1995, 1997, 1998), in presenting three different models, implicitly concedes that any one of these models is not sufficiently transferable even within the home visiting public health nursing service. In addition, although an explication of process is presented, the authors do not explicate differences in service quality.

To summarize, many challenges emerge in respect of understanding and measuring quality in a service where the central focus is predominantly on health promotion and preventive type work. These are: the importance of the organizational context in the way in which the service is delivered; the importance of the process of service delivery itself and finally, the need to take account of more than one stakeholder viewpoint.

Methodology

A collective case study approach (Stake 1995), identified through a systematic mini review (Hanafin *et al.* 2004) of the methodological literature around quality and public health nursing, emerged as the most appropriate way to answer the question 'How can service quality be understood in a holistic way'? This type of research approach attempts to preserve the 'wholeness, unity and integrity' of the case (Punch 1998: 153) and uses multiple sources of data and multiple data collection methods (Yin 1994, Stake 1995). Ethics was sought and received from the Ethics board of the school of nursing and midwifery, King's College London. The 'case' under study was the public health nursing service to families with infants in the Republic of Ireland and a two-phase approach was adopted. Phase 1 focussed primarily on the collection of quantitative and qualitative data using newly developed questionnaires for this study. This included a national census of PHNs (response rate 54%; $n = 946$) and PHN managers (response rate 75%; $n = 24$) and small group interviews ($n = 5$). The questionnaire to PHNs allowed for the broad landscape of public health nursing to be mapped and was guided by two key requirements. These were:

- to describe the key structures and processes of the public health nursing service at individual level, and
- to identify the respondents' understandings of service quality.

The use of a tried-and-tested tool has many advantages. Prior to this study, however, little was known about the public health nursing service itself and no previously developed tool was available. A new questionnaire was therefore constructed by following the steps identified.

- Content identification through an extensive literature review.
- Setting up of an 'expert' group to assist with question content, wording of questions, form of response to the question and place of the question in the sequence.
- Item identification using a funnelling process of the literature and expert group. This allowed broad areas relating to policy, provider, context, health centre, interdisciplinary working, elements of service provision and barriers, enablers and descriptor of service quality to be identified.
- Individual questions for inclusion were then identified using a test–retest approach and the incorporation of previously used and validated questions, including for example, an adaptation of the delighted-terrible (D-T) Likert-type scale (Andrews & Withey 1976).
- A pilot study was undertaken ($n = 14$) and some changes were made on completion.

A number of scales were used within the questionnaire and Cronbach's α and with the exception of one scale (client groups with whom PHNs have a responsibility ($\alpha = 0.7035$ for a 9-item scale), all others showed high internal consistency (in excess of 0.80).

An analysis of questionnaire responses was undertaken using SPSS© and descriptive and inferential techniques used as appropriate. Statistical tests were carried out to examine differences across the service (such as differences between health board areas, differences according to population size) and these were tested using tests of difference (for example, correlation analysis and chi-squared tests). The qualitative data from the open-ended survey questions were collated in a Word document. All quotes from each of the 12 open-ended questions (three of which asked specifically about quality) were transferred from the questionnaire and, in total, these ran to 97 000 words in almost 300 pages. A thematic analysis of the group interviews was undertaken and this was assisted by N4VIVO© software.

In the second phase of the study, four cases of the public health nursing service were identified by using theoretical sampling from data emerging from the national surveys. Key characteristics used to inform sampling related to:

- geographic characteristics (rural/urban, deprivation, size of population);
- PHN characteristics (level of education, length of time in area); and
- PHNs' constructions of the quality of the public health nursing service provided in that particular area.

The inclusion of participants within each case study site drew on different sampling strategies. PHNs and PHN managers who were interviewed were selected on the basis of the case study site area and were therefore theoretically selected. PHNs identified the potential clients for individual and group interviews and the basis of this selection can be understood as snowball-type sampling. General inclusion criteria for clients were mothers or fathers (or both) who had an infant under 1 year of age living in the area where the public health nursing service was being provided. PHNs were asked to identify the clients on the basis of the definition of a good informant described by Morse (1994). Although fathers were invited to take part, only mothers actually took part in the study. Interviews were all conducted by the first author using a 'funnel' strategy identified by Morgan (1997). A separate interview guide was prepared for each stakeholder group and each contained between four and six questions.

Group ($n = 3$) and individual ($n = 14$) interviews with clients, PHNs and PHN managers were carried out and data emerging from these were supplemented by non-participant observation of the public health nursing service at each of the case study sites. Lincoln and Guba (1985, p. 335) note that 'the method of constant comparison provides an excellent fit with the continuous and simultaneous collection and processing of data' and this method is also coherent with Stake's (1995) approach to data collection and analysis. For these reasons, analysis of individual cases, using concepts, categories and codes was undertaken and this was followed by cross-case analysis and triangulation of data, sources and methods. Figure 1 (see below) provides an overview of the chronology and constituent parts of the study.

The combined analysis focussed on a thick description of the organizational context, process and consequences of public health nursing service delivery to families with infants. A three-part (organizational context, process, consequences), seven-step (initiating, converging, preparing, opening, interacting, closing, follow up) model of service quality with five interlinking concepts (time, knowledge, communication, environment, orientation) emerged in this study as a model for taking account in a holistic way of service quality in the public health nursing service to families with infants. The complete model is illustrated in Figure 2 but only the findings relating to service quality and the process of service delivery are presented in this study.

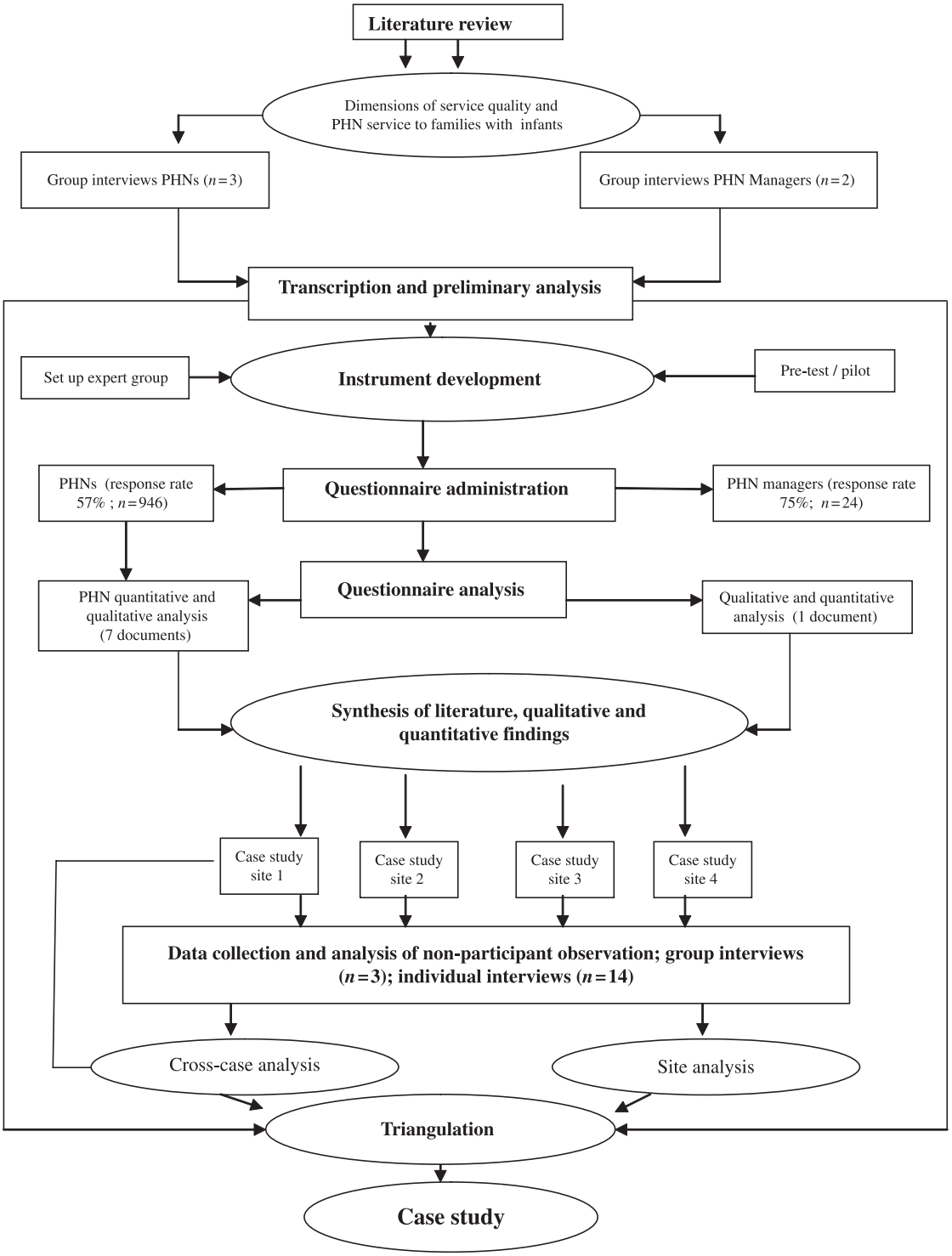


Figure 1
Overview of methodology.

Study findings on the process of service delivery

The analysis showed that there were a number of areas around which the stakeholders (managers, PHNs and clients) agreed that service quality could be measured. First, there was an agreement that the process of service delivery comprises the seven steps as identified in the study. Three of these steps take place before contact (initiating, converging, preparing), three during the time of contact (opening, interacting, closing) and one after contact takes place (following-up). An overview of each of these steps is now provided.

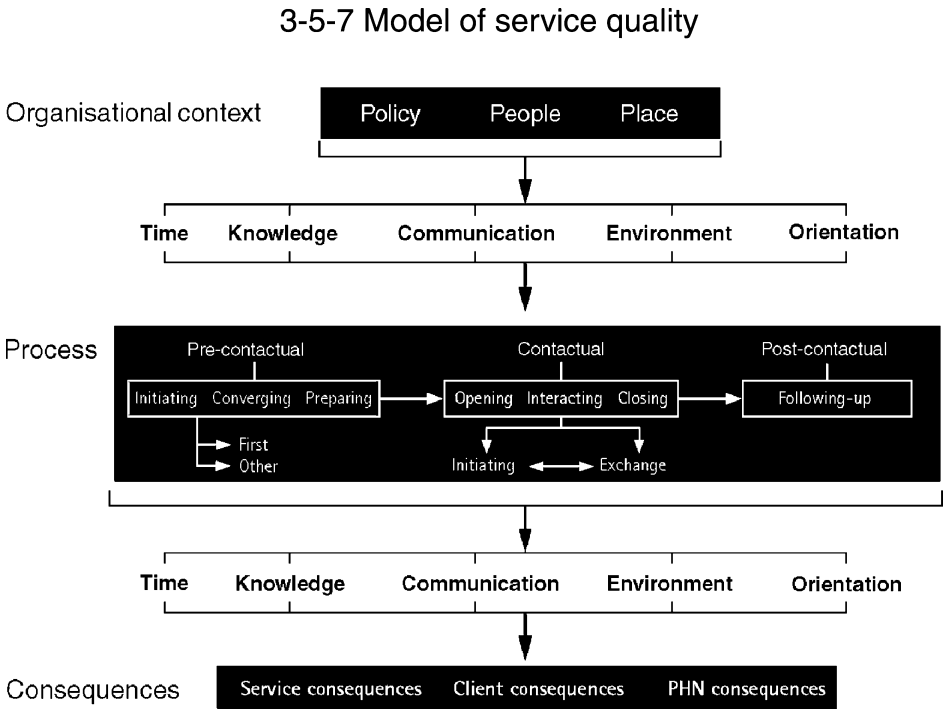


Figure 2
Overall model of service quality.

Precontactual phase

Initating

This is the first step in the process and it includes the rationale for, and mechanisms through which, the process of public health nursing to families with infants begins. Either the client or the PHN can initiate the process and there are differences between the first and subsequent steps in how this takes place. The PHN may initiate the process on the basis of mandated or personal policy or in respect to client need. In Ireland, for example, PHNs are mandated through policy to have contact with clients five times in the first year and these are, within 48 hours after discharge from hospital, 3, 6, 9 and 12 months. The extent to which this takes place, however, differs considerably according to public health nursing area as evidenced by the findings in respect of contact set out in Figure 3 (see below).

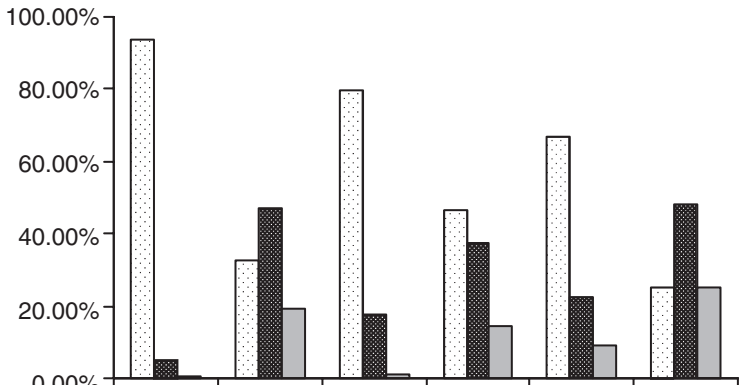
Figure 3 illustrates the importance of the first contact where almost all the PHNs reported they always have contact with families with infants. This compares with the findings for infants who are 6 weeks old [where less than one-third (32%) of PHNs report always having contact at that time] and 12 months (where only a quarter report always having contact).

Some PHNs, also, had a 'personal' policy of having additional contact with some families, if needed, which was constructed as driving up service quality. Not all PHNs were in a position to provide this contact and where a large workload led to a lack of time, PHNs referred to 'child health work going on the back-burner', 'other duties taking over', child health work being 'postponed' and 'mothers and infants left waiting'. Being able to choose whether to provide the service in the health centre or home environment was considered important and in the early stages, home visiting was considered of critical importance to quality. Benefits for the PHN included 'getting a clearer picture of the parent/child relationship' and being able to give 'environmentally specific information and advice'. Benefits for parents related to 'confidentiality' and being able to talk 'more freely' in their own home when they were 'at ease'.

A number of PHN managers highlighted a need for additional contact and suggested that a good quality service would mean that contact took place earlier and more often. As one manager noted:

> 'there should be an extension of the provision of antenatal care given by PHNs, a higher levels of service in the early weeks to support mothers with breast feeding and care of the newborn (Manager questionnaire)'.

Clients may also initiate the process on the basis of a general or specific need. Client initiation was influenced



	1st contact	6 weeks	3-4 months	6-7 months	9 months	12 months
Always	93.40	32.50	79.70	46.50	67.10	25.40
Usually	5.10%	47.10	17.90	37.60	22.50	48.20
Never	0.30%	19%	1.00%	14.50	9.00%	25%

Figure 3
Percentage of public health nurses (PHNs) reporting always, usually or never having contact at mandated times.

by the nature of problem, their construction of the focus of the service, their previous experience and the absence of a preferable service. Service quality was constructed as being good when the service was provided at the times it was deemed necessary, when it could take place in the environment deemed most appropriate (either home or clinic), when there was a good structure for communication, when clients and PHN had accurate knowledge about each other and when there was agreement between stakeholders about the focus of the service.

The need to be able to contact a professional about 'small things' emerged in the course of the data as being of central importance to the initiation of the service by either client or PHN. Mothers said that being able to ask questions about anything, especially 'things that are so small you would be embarrassed to ask your doctor about' was of particular importance. When there was a good relationship with the PHN, mothers said they would be able to initiate the public health nursing process without feeling they were 'wasting the nurses' time', 'being silly', 'stupid' or 'foolish'.

Converging

This step is so named because it describes the coming together of the client and the PHN once the decision has been taken to initiate contact. Although contact between the PHN and the client may take place opportunistically, it more often follows a formal initiation of the service. In order for the client to meet with the PHN, the service must be available at a suitable time and place. The client must have knowledge of this as well as knowing how to make contact. Mothers frequently said they needed as accurate and complete information about the availability of the service and although this was essential to their construction of service quality at all times, it was deemed especially important if they had to take time off work. This is also the case with the PHN who, in order to have contact with a client, must know where, when and how to do this. The following quote from a PHN illustrates the importance of the step of converging:

> 'Maura: I find now I go to see mine before three months because they are getting ready to go back to work. Some of them don't take the extra month and it's even better to get them at around the 10 or 11 weeks. Otherwise they are gone and you have no way of contacting them (Group interview, PHN)'.

When the service was available at a suitable time, when both the PHN and the client were easily contactable and, where there was choice about the place and time of contact, it was deemed to be of good quality. Where both the client the PHN understood the focus of the service to be towards supporting the individual family, they were more likely to report greater flexibility and responsiveness in terms of converging.

The setting for contact was identified as having a significant impact and service quality was deemed good when it could be provided in the place deemed most appropriate by both client and PHN, Benefits of home visiting for the PHN, for example, included 'getting a clearer picture of the parent/child relationship' and being able to give environmentally specific information

and advice. Home visits also enabled good relationships to be established because the ambience in the home was associated with having 'a relaxed and informal setting'. Benefits identified by the client included being 'able to talk more freely', 'being more at ease', 'more convenient', 'more relaxed' and more 'personal'.

Preparing

Some PHNs, and some clients, made preparations for the time of contact (the contactual phase). Preparations undertaken by the PHN included making appointments, examining previous records and gathering health promotion material together. For the client, preparations included arranging for a partner to accompany them to the health centre, making arrangements for other children to be cared for and making sure the house and infant were clean and tidy. Service quality was identified as being good when the PHN was knowledgeable about the individual client, when appointments were mutually convenient and timely and when there was no added burden on the client.

Contactual phase

The time of contact has three steps, which are opening, interacting and closing. During the time of 'interacting' many different issues may be discussed or activities undertaken, such as providing advice on feeding, undertaking a developmental check or weighing the infant. Regardless of the specific activity, an understanding of service quality is constructed on the basis of each one of these three steps. If difficulties arise in respect of any individual step, the quality of the service will be constructed as unsatisfactory.

Opening

This step takes place when the PHN and client come in either direct face-to-face or telephonic contact with each other. In many situations this is a relatively uncomplicated step but in some situations, particularly when PHNs called at client's homes and were not welcomed in they felt 'uncomfortable' and 'stressed', this had an impact on the quality of the service. PHNs, however, indicated that generally they were well-accepted by families and this is illustrated in the following quote:

> 'Una: She met me in the hallway and said ''are you checking up on me? Do you feel I am not doing a good job''?
>
> 'Jean: Well, the only one I ever got that from now was [name of person]. They didn't want their children on any records and that's years ago'.
>
> 'Una: But I'll be going back again soon now you know… but you don't feel comfortable going in (GrpPHN2)'.

Clients also supported the existence of this step and indicated that when the PHN appeared 'friendly', 'professional' and interested in them they felt more relaxed about the contact. Clients also provided a number of examples of how this step also had the potential to positively influence the interaction as illustrated below:

> 'Bernadette: I just found she had an airy manner and you know lovely…, down to earth and she said and ''Hi [client name] and how are you''? You know they all ask after the baby but ''how are you''? I thought it was a lovely start (Group Interview client)'.

Interacting

This step forms the substance of the contact between the PHN and the client and it is usual for several of these substances to take place during each time of contact. The step of interacting can be understood as having two parts, one related to initiation and the other related to the exchange. Initiating an interaction refers to raising an issue or topic for exchange within the interaction and it shares many common features with the initiation of service process in the time before contact. Its importance to service quality lies in stakeholders' willingness and ability to raise any particular issue, question or topic as a focus during the interaction.

The exchange is so named because each component generally involves 'giving' and 'receiving' by both the PHN and the client. The centrality of activities that took place during the process of the service delivery to the provision of a good quality service was identified by the PHNs in their response to the questionnaire survey and these findings are shown in Table 1 (see below).

Service quality was understood by the key stakeholders during the interaction to be good when there was sufficient time, open, non-directive communication, a high level of knowledge, a supportive environment and an orientation towards the needs of individuals within the family. The clients, managers and PHNs also spoke about the importance of developing and maintaining a good relationship. There was a general consensus that relationships had to be 'built', 'developed', 'established' and 'formed' and that this development was both 'dynamic' and 'continuous' in nature.

Table 1
Centrality of key activities of the public health nursing process to the provision of a quality service (page 16)

*Element**	*'Very central', % (n)*†
Building a relationship	86.5 (513)
Giving support	86.8 (515)
Involving fathers	44.8 (259)
Maternal health and well-being	87.2 (519)
Infant health and well-being	90.2 (526)
Advice on feeding	81.1 (525)
Advice on hygiene	73.2 (439)
Advice on accident prevention	79.2 (473)
Referral to other professionals	68.6 (409)
Referral to other agencies	64.4 (409)
Carrying out developmental checks	82.8 (495)
Checking for abuse and/or neglect	75.8 (448)
Identifying community needs	53.4 (318)
Developing community services	47.3 (277)

*Element of practice.
†Percentage of public health nurse (PHN) responding to questionnaire reporting element very central.

Closing

The contactual phase ends with a step of closing and, as with the step of opening this may simply be a matter of indicating that the contact has come to an end. Generally, this step does not emerge as having an influence on service quality unless it was ended abruptly as this mother whose usual PHN was unavailable explains:

> 'Patricia: [name of PHN] doesn't do that to you. You know, she lets you undress the baby. I was practically going out the door and putting on the sock on the baby (Group interview client)'.

Postcontactual phase

Following-up

The final step in the process of public health nursing service delivery is follow up and this takes place after completion of the contactual phase. It is so named because, in respect of service quality, both the client and the PHN must act on the findings of the previous phase and what takes place during this phase can in turn influence constructions of service quality. PHN follow up in relation to the client may involve assessing, identifying and compiling information not available to them at the time of the contactual phase. This may, in some situations, be simply a matter of returning to the health centre and getting written information about a particular topic (for example, pelvic floor exercises, contraception) although generally, it is more complicated than that. The follow up may involve identifying information about a local service (for example, the time and location of a playgroup, a company that hired breast pumps for breast feeding mothers). When the PHN has identified the information or other sources of advice and communicated that to the client, service quality was understood to be good as the quote from the client below illustrates.

> 'Julie: I had asked her questions about contraceptives and all that and am she had she called just out of the blue and dropped in a few information leaflets and just went again and called the next day to see if I had read them you know. She was putting me on to somebody else to help me get on with whatever I was doing. …It was very good, oh yeah, like it just showed me that she was thinking (Group interview client)'.

The public health function of identifying community needs is clearly supported and guided by the contact between the PHN and individual families and the process through which this takes place is illustrated by the following quote:

> 'Kathleen: But one thing I did when the big estates started, I would, if someone said they were lonely, I would then in my next house say ''would you be interested in meeting up with somebody''? and I would give them telephone numbers. Like, I swapped telephone numbers and then in the estates I would be going into maybe twenty houses they would then have a coffee morning among themselves. Informally just coffee and biscuits and then the children would play around and that led then to a mother and toddler group (Individual interview PHN)'.

Almost half the PHN respondents (49.8%; $n = 297$) to the questionnaire survey indicated that they had been involved in setting up either formal or informal supports for families with infants in their area and examples identified were breast feeding support groups and mother and toddler groups although a range of services was identified.

Five key concepts

Throughout the process of service delivery, five concepts relating to service quality emerged. These are explained in greater detail elsewhere (Hanafin 2003), but in brief, they were:

- time;
- knowledge;
- environment;
- communication; and
- orientation.

In each of the above steps, examples of how these influenced the constructs of service quality have been given and different steps of the process are now used to illustrate their importance to the quality of service delivery. At the point of initiation, for example, having time to undertake contacts considered necessary could be understood as the most critical element. Each of the other four concepts, however, is also necessary. Without communication from the hospital that the infant has taken birth, knowledge (professional and local) of the increased needs of some families over others, a policy and service orientation towards a universal service, and an environment appropriate for the contact, the step of initiation may not take place or, if it does, may not be of high quality. Where key stakeholders construct any one of these elements as deficient, this step is understood as poor quality. Consequently, a holistic understanding of service quality must take account of each of the five concepts at each of the seven steps. While acknowledging that for some steps, in some situations, with some stakeholders, each concept does not emerge with equal importance, consideration of all the five in constructing an understanding of service quality is essential.

Discussion

Increasingly, it is being recognized that client's views of service quality may differ from those of managers or service providers and this clearly presents some difficulties in how quality can be measured. The absence of a tangible output, such as a dressing or an injection, further compounds the difficulties in measurement and may affect how the service is valued. The model presented here recognizes these differences and provides a framework for mediating them. It does so by making explicit the seven steps of the process and the five concepts around which judgements of service quality are made. This enables a common focus irrespective of the stakeholder and irrespective of the particular judgement.

The process model developed in this study has common elements with those of Byrd (1995, 1997, 1998) and Øvretveit (1992) as each identifies the steps that can be understood as taking place in precontactual, contactual and postcontactual phases according to a temporal trajectory. Øvretveit's (1992) understanding of service quality, however, differs fundamentally from the findings of this study. His model suggests that clients' understandings of service quality are premised on an overall experience of the service, underpinned by the gap between expectations and experience, from the time of selection to exit. This is at odds with the findings from this study where there is a strong evidence that an understanding of service quality is constructed on the basis of individual steps in each individual processes.

Byrd (1995, 1997, 1998) presents three models and the first step is identified variously as 'identifying medium' (Byrd 1995), 'surveying and designating' (Byrd 1997) and 'responding and scheduling' (Byrd 1998). In this study, the three steps identified in the precontactual phase (initiating, converging and preparing) can accommodate the differences identified across the three models described by Byrd (1995, 1997, 1998) and hence, can take account of multiple stakeholder views.

The five concepts of time, knowledge, communication, environment and orientation, individually identified here are neither unique nor new in themselves but they have not been presented collectively hitherto. There are many examples of individual studies, focussing on one or two steps of the process coupled with perhaps one or two of the concepts identified in this study. The importance of time within the overall context of service quality has been identified by a number of different authors where timing (Cowley 1991), and 'insufficient time' (Williams 1998, Terov & Akselsson 2005) have been identified. The same is also true of each of the other four concepts. Having expertise in a content area (Reutter & Ford 1996), being competent (Jansson *et al.* 1998), having appropriate qualifications (Cowley 1995, Twinn & Shiu 1996) and being an informed and credible practitioner (Collinson & Cowley 1998) were all identified as being important to good service quality. Clients' knowledge of the service influenced service utilization (Luker & Chalmers 1990, Collinson & Cowley 1998) and knowledge of other services was noted to be central to the referral process (Luker & Chalmers 1989, Satzinger *et al.* 2005). The findings from this study in respect of communication are also supported by other authors (Jansson *et al.* 1998, Austin *et al.* 2000, Satzinger *et al.* 2005). When communication between PHN and client was open (de la Cuesta 1993), individualized (Macleod Clark *et al.* 1997), friendly and interested (Collinson & Cowley 1998) and when the communication style facilitated a partnership approach with the client, service quality was understood as being positive.

By taking account of 'environment', the impact of policy, people and place can be taken into account in the process of the service. The community as a setting for the public health nursing service is a key factor that distinguishes the public health nursing service from other nursing services where the work takes place in a hospital or other institutional environment. In this study, the home setting was considered to be

particularly crucial at certain times (for example, first contact) and for certain activities (for example, building a relationship, identifying hidden needs) but at other times the health centre was identified as being more appropriate (for example, the 9-month developmental examination where hearing tests take place). Environment has also been identified as important in other community (Austin *et al.* 2000) and hospital settings (Meretoja *et al.* 2004).

The final concept relates to orientation, which has also emerged in different ways in other studies. Some authors, for example, Reutter and Ford (1996) have noted that the difference in orientation between public health nursing work (on health promotion and illness prevention) and other nurses (on illness) is a key issue in how the service is valued. Others (Cowley & Billings 1999) identified a legitimate focus of health visiting work on the 'individual client' or 'community as client' as necessary structural conditions for the establishment of new services. The importance of orientation has also been identified by authors in other areas, and Wade (1999), for example, notes that the development of positive attitudes to working with older people is a necessary prerequisite for promoting quality of care.

Conclusion

In conclusion, the seven-step model (initiating, converging, preparing, opening interacting, closing, following-up) presented in this study provides a novel framework for understanding service quality in health promotion and preventive services. It is argued here that a focus on process is desirable in such services for three main reasons. First, difficulties in respect of identification and measurement of quality due to issues around attribution, longitudinality and valid outcome measures mean traditional approaches to quality assurance tend to be unhelpful in health promotion and preventive services. Secondly, the long term and multi-faceted nature of these services means they are driven by processes rather than outcomes. Finally, the ability to identify specific elements of the service that are working well or not, is fundamental to driving up quality.

The seven steps of process outlined in this study take account of constructions of service quality as presented by PHNs, PHN managers and clients but it is suggested here that these steps can also be applied to many other services. By extending the general understanding of process to encompass a three-phase trajectory (precontactual, contactual, postcontactual), the breadth of service delivery process can be taken into account. Of those who have written on the subject, only two authors (Byrd 1995, 1997, 1998, Øvretveit 1992) present understandings of service quality that encompass this broader understanding, and the limitations of both these models have been already presented here. This model can overcome those limitations by accommodating multiple stakeholders' constructions and this offers the prospect of an ontologically holistic approach to assessing service quality.

A further contribution lies in the identification of a legitimate alternative to outcome measurement that takes account of epistemological difficulties arising from the health promotion and preventive nature of public health nursing work with families with infants. The long-term nature of outcome measurement has been identified as a key problem when assessing service quality in such situations (Carr-Hill 1992, Twinn & Shiu 1996, Macleod Clark *et al.* 1997). An explicit account of each step of the process enables measures of quality to be 'located in a shorter time frame and in the context of the process of the interaction' (Macleod Clark *et al.* 1997, p. 18). Finally, the importance of the five concepts of time, knowledge, communication, environment and orientation in constructing an understanding of service quality is their comprehensiveness in how service quality is evaluated. These concepts have been shown to be transferable to other contexts and when coupled with the seven steps of process outlined above, they offer a solution to the difficulties encountered in assessing quality in health promotion and preventive services. The seven-step process and five concepts of service quality set out in this study offer a viable alternative to outcome measurement in health promotion and preventive services.

References

Andrews F.M. & Withey S.B. (1976) *Social Indicators of Well-being: American Perceptions of Life Quality*. Plenum Press, New York, USA.

Austin L., Luker K., Caress A. & Hallett C. (2000) Palliative care: community nurses' perceptions of quality. *Quality in Health Care* **9**, 151–158.

Byrd M. (1995) A concept analysis of home visiting. *Public Health Nursing* **12** (2), 83–89.

Byrd M. (1997) Child-focused single home visiting. *Public Health Nursing* **14** (5), 313–322.

Byrd M. (1998) Long-term maternal-child home visiting. *Public Health Nursing* **15** (4), 235–242.

Carr-Hill R.A. (1992) The measurement of patient satisfaction. *Journal of Public Health Medicine* **14** (3), 236–249.

Chalmers K. (1992) Giving and receiving: an empirically derived theory on health visiting practice. *Journal of Advanced Nursing* **17**, 1317–1325.

Chalmers K. (1993) Searching for health needs: the work of health visiting. *Journal of Advanced Nursing* **18**, 900–911.

Chalmers K. (1994) Difficult work: health visitors' work with clients in the community. *International Journal of Nursing Studies* **31** (2), 168–182.

Collinson S. & Cowley S. (1998) An exploratory study of demand for the health visiting service within a marketing framework. *Journal of Advanced Nursing* **28** (3), 499–507.

Cowley S. (1991) A symbolic awareness context identified through a grounded theory study of health visiting. *Journal of Advanced Nursing* **16**, 648–656.

Cowley S. (1994) Counting practice: the impact of information systems on community nursing. *Journal of Nursing Management* **1**, 273–278.

Cowley S. (1995) In health visiting, a routine visit is one that has passed. *Journal of Advanced Nursing* **22**, 276–284.

Cowley S. (1999) Early interventions: evidence for implementing sure start. *Community Practitioner* **72** (6), 162–165.

Cowley S. & Billings J. (1999) Implementing new health visiting services through action research: an analysis of process. *Journal of Advanced Nursing* **30** (4), 965–974.

de la Cuesta C. (1993) Fringe work: peripheral work in health visiting. *Sociology of Health and Illness* **15** (5), 667–682.

de la Cuesta C. (1994) Relationships in health visiting: enabling and mediating. *International Journal of Nursing Studies* **31** (5), 451–459.

Hanafin S. (1997) The role of the Irish public health nurse: manager, clinician and health promoter. *Health Visitor* **70** (8), 295–297.

Hanafin S. (2003) A Case Study of Irish Public Health Nursing: a Model of Service Quality for Families with Infants. Unpublished Thesis, King's College London, London, UK.

Hanafin S., Houston A.M. & Cowley S. (2002) Vertical equity in service provision: a model for the Irish public health nursing service. *Journal of Advanced Nursing* **39** (1), 68–76.

Hanafin S., Griffiths P. & Cowley S. (2004) An application of the mini-review to a complex methodological question: how best to research public health nursing and service quality. *International Journal of Nursing Studies* **41** (7), 799–811.

HMSO (2003) *The Victoria Climbié Inquiry Report of an Inquiry by Lord Leming*. HMSO, London, UK.

Jansson A., Isacsson Å., Kornfält R. & Lindholm L.H. (1998) Quality in child healthcare: the views of mothers and public health nurses. *Scandinavian Journal of Caring Science* **12** (4), 195–204.

Joint Committee of Inquiry (1995) *Kelly – A Child is Dead. Interim Report of the Joint Committee on the Family*. Government Publications, Dublin.

Kendall S. (ed.) (2003) *Health and Empowerment: Research and Practice*. Arnold, London, UK.

Lincoln Y.S. & Guba E.G. (1985) *Naturalistic Inquiry*. Sage, London, UK.

Luker K.A. & Chalmers K. (1989) The referral process in health visiting. *International Journal of Nursing Studies* **26** (2), 173–185.

Luker K.A. & Chalmers K. (1990) Gaining access to clients: the case of health visiting. *Journal of Advanced Nursing* **15**, 74–82.

Macleod Clark J., Francks H., Maben J. & Latter S. (1997) *The Developing Quality Indicators Project: Health Promotion in Primary Health Care Nursing*. Phase 2, Final Report. Nightingale Institute, King's College London, London, UK.

Meretoja R., Leino-Kilpi H. & Kaira Am (2004) Comparison of nurse competence in different hospital work environments. *Journal of Nursing Management* **12** (5), 329–336.

Mohammed A., Mohammed J., Mant J., Bentham L. & Raftery J. (2005) Comparing processes of stroke care in high-and low-mortality hospitals in the West Midlands, UK. *International Journal for Quality in Health Care* **17** (1), 31–36.

Morgan D.L. (1997) *Focus Groups as Qualitative Research*, 2nd edn. Sage, London, UK.

Morse J.M. (ed.) (1994) *Critical Issues in Qualitative Research Methods*. pp. 95–115. Sage, Thousand Oaks, CA, USA.

Naidoo J. & Wills J. (1998) *Practicing Health Promotion: Dilemmas and Challenges*. Bailliere Tindall, London, UK.

Øvretveit J. (1992) *Health Service Quality: An Introduction to Quality Methods for Health Services*. Blackwell Science Ltd, Oxford, UK.

Paavilainen E. & Åstedt-Kurki P. (1997) The client-nurse relationship as experienced by public health nurses: towards better collaboration. *Public Health Nursing* **14** (3), 137–142.

Punch K. (1998) *Introduction to Social Research*. Sage, London.

Reutter L. & Ford J. (1996) Perceptions of public health nursing: views from the field. *Journal of Advanced Nursing* **24**, 7–15.

Satzinger W., Courté-Wienecke S., Wenng S. & Herkert B. (2005) Bridging the information gap between hospitals and home care services: experience with a patient admission and discharge form. *Journal of Nursing Management* **13** (3), 257–264.

Sidell M., Jones L., Katz J. & Peberdy A. (eds) (1997) *Debates and Dilemmas in Promoting Health A Reader*. Macmillan Press Ltd, London, UK.

Stake R.E. (1995) *The Art of Case Study Research*. Sage, London, UK.

Terov S. & Akselsson R. (2005) System weaknesses as contributing causes of accidents in health care. *International Journal for Quality in Health Care* **17** (1), 5–13.

Twinn S. & Shiu A. (1996) An evaluation of the effectiveness of public health nursing: a case study of the maternal and child health centres in Hong Kong. *International Journal of Nursing Studies* **33** (4), 442–454.

United Nations High Commissioner for Human Rights (1989) *Convention on the Rights of the Child*. United Nations High Commissioner for Human Rights, Geneva, Switzerland.

Wade S. (1999) Promoting quality of care for older people: developing positive attitudes to working with older people. *Journal of Nursing Management* **7** (6), 33–347.

Williams A. (1998) The delivery of quality nursing care: a grounded theory study of the nurse's perspective. *Journal of Advanced Nursing* **27**, 808–816.

Yin R. (1994) *Case Study Research Design and Methods*, 2nd edn. Sage, London, UK.

