Focus group interviews as a data collecting strategy

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Focus group interviews are a method for collecting qualitative data and have enjoyed a surge in popularity in health care research over the last 20 years. However, the literature on this method is ambiguous in relation to the size, constitution, purpose and execution of focus groups.

The aim of this article is to explore some of the methodological issues arising from using focus group interviews in order to stimulate debate about their efficacy.

Methodological issues are discussed in the context of a study examining attitudes towards and beliefs about older adults in hospital settings among first-level registered nurses, nursing lecturers and student nurses. Focus group interviews were used to identify everyday language and constructs used by nurses, with the intention of incorporating the findings into an instrument to measure attitudes and beliefs quantitatively.

Experiences of conducting focus group interviews demonstrated that smaller groups were more manageable and that groups made up of strangers required more moderator intervention. However, as a data collecting strategy they are a rich source of information.

Keywords: focus groups, qualitative research, data collection, nursing

Introduction

A decision to use focus group interviews as a data collecting strategy made me aware of the lack of consensus on how to organize and execute them, including their composition and the appropriate number of participants. The aim of this paper is to explore their effectiveness as a data collecting strategy, with reference to a study examining the attitudes and beliefs of registered nurses, nursing lecturers and student nurses on older adults in hospital settings. The intended outcome of the study was the development of an attitudinal questionnaire, based on the focus group data.

Focus groups

Definitions

Most authors agree that the main advantage of focus group interviews is the purposeful use of interaction in order to generate data (Merton et al. 1990, Kitzinger 1996, Morgan 1996). It is this use of interaction which distinguishes them from other groups (Merton et al. 1990). Carey (1994) describes the definition of focus group technique as imprecise. However, she goes on to define it as ‘using a semi structured group session, moderated by a group leader, held in an informal setting, with the purpose of collecting information on a designated topic’ (p. 226). This emphasis on interaction is reiterated by Morgan (1996), who goes on to identify the three major components of focus group research as (1) a method devoted to data collection; (2) interaction as a source of data; and (3) the active role of the researcher in creating group discussion for data collection.

Types

Calder (1977) describes focus groups according to the type of knowledge that they generate. He classifies knowledge into everyday knowledge and scientific knowledge. Everyday
knowledge stems from the terms and language people use to give meaning to their everyday world, whereas scientific knowledge involves the use of numerical measurement to test constructs and hypotheses. These two types of knowledge are associated with qualitative and quantitative research respectively, and Calder argues that focus groups can be used to gather both types of data. This is in contrast to Basch (1987) who conceptualizes them as relevant to qualitative research alone.

Calder (1977) reinforces the notion of a qualitative–quantitative continuum of focus groups by describing several different types. They can be exploratory and aimed at generating hypotheses; they can be used to identify constructs prior to a quantitative study and, thus, be labelled ‘pre-scientific’; they can be clinical groups attempting to conduct qualitative research as a scientific endeavour and, therefore, be described as ‘quasi-scientific’. Finally, they can be phenomenological, in that they give access to people’s common sense conceptions and everyday explanations. This type relies on collecting data based on everyday knowledge.

Wilkinson (1998) supports the notion of focus groups within the framework of phenomenology. In addition to people’s experiences, meanings and understandings, she includes their attitudes, opinions, knowledge and beliefs as subsets of phenomenology. The rationale for this is that the researcher is trying to extract the participant’s understanding of the issues under question. However, Webb and Kevern (2001) call into question the compatibility of focus groups with a phenomenological framework, as the group context does not allow data to be gathered in an uncontaminated way. Thus, there is a difference in opinion about the underpinning paradigmatic assumptions of focus group research.

Uses

Focus group techniques, according to Morgan (1996) and Gray-Vickery (1993), have been borrowed from marketing research and incorporated into social sciences and, latterly, nursing research. However Powell et al. (1996) state that Bogardus originated these techniques in 1926. He characterized them as tools for understanding people’s attitudes and opinions about different social issues, such as race relations or attitudes to ‘motion pictures’ (Bogardus 1926). However, both Krueger (1994) and Carey (1994) credit the work of Merton et al. in the 1940s with influencing their upsurge in popularity (Merton et al. 1990).

In nursing, research projects using focus groups have been many and varied, and have covered different spheres, such as clinical nursing and nurse education. Gray-Vickery (1993) promoted focus groups in gerontological nursing and also as a method of collecting data from visually impaired older adults, thus suggesting that they could be used for both nurses and client groups. Carey (1994) describes how they can be used to explore beliefs about and attitudes towards AIDS. Powell et al. (1996) used focus groups to enhance the validity of mental health questionnaires and Millar et al. (1996) used them to evaluate both nurses’ and users’ levels of satisfaction with health services.

Focus group interviews have not always been confined to research, although Morgan (1996) questions whether those that do not have a research purpose are really focus groups. MacIntosh (1993) employed focus groups as part of a teaching strategy that involved teleconferencing and distance learning; the stated purpose was to explore issues and maintain maximum participation in class. McKinley et al. (1997) developed a questionnaire through focus groups on evaluating patient satisfaction with out-of-hours primary care. Millar et al. (1996) used them in a novel way, in that the groups met on three separate occasions with the express purpose of allowing each group to challenge ideas from other groups, in order to gain consensus for a project. Finally, Howard et al. (1989) employed only one focus group with four participants to evaluate student performance after graduation.

In summary, focus groups have been extremely varied in terms of topic, participants, how they are organized and purpose, such as teaching or research.

Methods

There are a number of reasons for using focus groups, including the development of a new measuring instrument (Gray-Vickery 1993, McKinley et al. 1997). However, the literature does not explain how focus group data can be transformed systematically into a new questionnaire, although Powell et al. (1996), who used them to enhance the validity of questionnaires, examine their usefulness. Firstly, focus groups may pay explicit attention to consumers rather than professionals, with the consumer being regarded as the expert. Secondly, they depend on dynamic interaction to provide the information sought (Kitzinger 1996). Thirdly, they can provide major insights into attitudes, beliefs and opinions (Carey 1994). However, Kitzinger (1996) identifies a disadvantage, in that they can silence individual voices of dissent.

Focus groups can also be combined with surveys (Morgan 1996). However Morgan acknowledges that this particular aspect lacks support in terms of research publications. Krueger (1994) sounds a warning by stating that focus...
groups may be misused, in that they may be used to improve morale by providing feelings of involvement and an impression that an organization is ‘listening’, when it is not actually doing so.

Focus groups are particularly useful for reflecting the social realities of a cultural group, through direct access to the language and concepts which structure participants’ experiences (Hughes & DuMont 1993). Morgan (1996) points out that focus groups are neither as strong as participant observation in their ability to observe phenomena in context, nor as strong as in-depth individual interviews in providing a rich understanding of participants’ knowledge. However, they are better at combining those two goals than either technique alone.

A number of researchers, therefore, recommend the use of focus groups for the development of a new inventory and this is congruent with the aims of my study (Gray-Vickery 1993, Morgan 1996; McKinley et al. 1997).

The study

Aims

The study had two main aims: (1) to explore the attitudes of a range of nurses and nursing lecturers towards working with older adults in hospital settings; and (2) to use focus group data to develop a questionnaire to measure these attitudes quantitatively.

Development of the interview guide

The interview guide was developed through reading literature on attitudes towards older adults (Kingry et al. 1990). A preliminary list, containing the key issues to be explored during interviews, was produced. This list was examined, and broad issues were identified and incorporated into the interview guide. Broad questions were used and participants were informed of the questions prior to coming to the group.

The purpose of the interview guide is to direct group discussion and to stimulate conversation about the research topic, as well as to ensure that all the desired information is sought (Dilorio et al. 1994). Principles relating to developing interview questions are put forward by Kingry et al. (1990), who suggest that they should progress from general to specific, and non-threatening to more threatening, the purpose being to encourage participation from all members of the group from the start. However, these questions act only as a guide, and the moderator may ask other questions or use comments as necessary to stimulate and focus discussion.

A pilot interview was carried out, using a convenience sample of nine third-year student nurses, the purposes of which were to test the interview guide and evaluate, firstly, the most appropriate number of participants and, secondly, the length of time required to obtain rich and meaningful data. Topics were covered in depth over 1 hour but there were difficulties in facilitating a group of nine. For example, it was difficult to ensure equal contribution to the discussion in such a large group. For this reason, it was decided that four to six participants might lessen difficulties in facilitation.

The interview guide required no alteration as the questions were understood and answered satisfactorily. I moderated the group, and found it challenging in that it was tempting to contribute as well as facilitate. However, I acknowledged my deficiencies and remained in the background except when seeking clarification of answers. The pilot interview provided rich descriptions and was much more successful than anticipated.

Main study

Composition of the groups

The groups were homogeneous in terms of stage of education/nursing practice. For instance, students formed one group, nurses for the care of older adults formed another, as did nurses from acute wards and, finally, nursing lecturers. There was no further attempt to maintain homogeneity, as all groups were heterogeneous in terms of age and gender. Most of the groups knew each other, whether as friends, colleagues or acquaintances.

Homogeneity is discussed by Carey (1994), who recommends that focus groups should be homogeneous in terms of age, status, class, occupation and other characteristics, as they will influence whether participants interact with each other. She also states that they should be strangers. However, work by Fern (1982) advises that there are only slight differences when comparing homogeneous and non-homogeneous groups and that these do not suggest that the maintenance of homogeneity is necessary. Calder (1977) claims that the purpose of the group should dictate the degree of homogeneity, and goes on to recommend that exploratory research should use heterogeneous groups, as they may produce rich information, whereas homogeneous groups may be used to facilitate rapport.

MacIntosh (1993) does not appear to consider these issues, as her focus groups were made up of people who attended her course at different teleconferencing sites. Others, such as Powell et al. (1996), reject the use of homogeneity and strangers for both pragmatic and methodological reasons. Pragmatic reasons include limitations of time and available...
resources, and preformed groups, which may be composed of friends, can offer a supportive environment, conducive to open discussion and, thus, credible research.

Data collection

Numbers of groups and participants

Six focus groups were conducted with one group of nursing lecturers (n = 6), two groups of students (n = 9 and 8), two groups of nurses from care of older adults areas (n = 5 and 4) and one group from the acute clinical areas (n = 4). The decision to carry out two group interviews with nurses from care of older adults areas occurred because I did not remain as neutral as I would have liked during the first group interview. Consequently, another interview was carried out with participants from another hospital where older adults were nursed.

Numbers of focus groups

Millward (1995) states that data generated after about 10 focus group sessions are likely to be largely redundant, whereas Krueger (1994) suggests that the minimum may be three and the maximum 12. However, he recommends that several focus groups are conducted with similar types of participants. Nyamathi and Shuler (1990) state that four focus groups are sufficient, but that consideration of response saturation should be made after the third. Finally, Stewart and Shamdasani (1990) suggest that there are no general rules as to the optimal number of focus groups. They put forward the rationale of working out the number of groups according to the homogeneity of the potential population, and the ease of research application. Furthermore, they suggest that one focus group may well be enough. The notion of saturation is a useful concept, as interviews can end when no new information is being collected, and I used this guiding principle in my study.

Kitzinger (1994) claims that she completed the largest recorded number of focus groups for a study by carrying out 52 group interviews. Her justification for this was the many types of people who were involved in AIDS issues. However, external influences, such as costs in terms of time and resources, often dictate the number of focus groups. This was demonstrated by Howard et al. (1989), whose reason for carrying out one focus group interview was difficulty in arranging mutually convenient times.

Sample size

Sample size is one of the more contentious issues, as there is little consensus as to what is most appropriate. Greenbaum (1988) identifies three different types of focus groups: full groups, in which there are ten to 12 people; mini-groups, which have four to six participants; and telephone groups, which are linked by telephone conferencing facilities. However, Greenbaum studied focus groups and their role in research from a marketing stance. Fern (1982) investigated how size influenced focus group discussion and found that a group of four generated fewer concepts than a group of eight. This finding is diametrically opposed by Morgan (1996), who comments that, from a moderator stance, smaller groups are easier to manage, especially if the topics are highly charged and there is much discussion. Carey (1994) reinforces this view when she states that the fewer people there are in the group, the greater the likelihood that they will interact, and reiterates the ease with which moderators can manage and attend to a smaller group. However, she also states that smaller focus groups can be more labour-intensive.

Some authors advise that groups should consist of six to 10 people (Howard et al. 1989), or four to eight (Kitzinger 1996), or four to five (Twinn 1998). Merton et al. (1990, p. 137) state that a focus group should not be so large ‘as to be unwieldy or to preclude adequate participation by most members nor should it be so small that it fails to provide substantially greater coverage than that of an interview with one individual’. They go on to recommend groups of 12–15, or even 15–20, participants. Thus, numbers of participants may vary from four to 20. A systematic evaluation of relationships between sample size and effectiveness in group interviews might enable novice researchers to make more informed decisions.

Role of the moderator

Basch (1987, p. 415) describes the role of the moderator as to ‘create a non-threatening supportive climate that encourages all participants to share views; facilitating interaction among members; interjecting probing comments, transitional questions and summaries without interfering too brusquely with the dialogue; covering important topics and questions while relying on judgements to abandon aspects of the outline, noting non-verbal responses’.

A decision has to be made as to who will take the role of moderator. Carey (1994) states that the researcher is not always the best person to act as moderator, as they may not have the necessary skills. However, Millward (1995) suggests that it is useful for the moderator to be directly involved in the project because they will be sensitive to the issues and the need for methodological rigour, even if their group management skills are not especially polished.

In my study, individual groups managed the order in which topics were covered and questions were changed slightly depending on the nature of the group. In other words, they were tailored to suit the groups. One topic which was
developed by most of the groups without prompting was the possible learning experiences of student nurses placed on care of older adults wards.

Along with focus group questions, ground rules were developed for all groups. This process was explained to participants in writing and once again prior to commencing the interview (Krueger 1994). Use of the tape- and video-recorder was explained: if one failed another source of data was available. Assurances of confidentiality were reiterated (White & Thomson 1995), and participants were informed that they could stop the interview at any time if they wished. The purpose of the group interview was once again explained, i.e. to develop a questionnaire.

Thus, participants were informed about the purpose and design of the research, and my proposed dissemination strategy. They were assured that there would be privacy in gathering, storing and handling data. The only people who would view the videotapes would be the researcher and the research supervisor. They were also guaranteed that the data would be destroyed at the conclusion of the study but would be stored in computer files until that time (Medical Research Council 2000, Cerinus 2001). All data were anonymized by ensuring participants did not use names during interviews. If names were used, they were changed during tape transcription, as were all references to hospitals.

The role of the moderator was explained: to ask the questions and seek elaboration but stay neutral (Reiskin 1992). Participants were asked to express what they thought and felt, and a promise of ‘no repercussions’ was given in relation to any contentious issues raised. They were asked to speak individually and not speak over each other and a time limit of 1 hour was put on discussion. They were afforded the opportunity to ask any questions prior to commencing the interview.

An atmosphere conducive to facilitating trust is essential if all members of the group are to participate (White & Thomson 1995). Dilorio et al. (1994) describe the setting as crucial, in that it should be neutral but familiar. This was achieved for all interviews except the one with acute staff, who were required to come to the nursing school. The other staff interviews were carried out in the relevant hospital. Refreshments were provided in the form of tea and coffee, cakes and biscuits. McDaniel and Bach (1996) describe the use of refreshments as a measure to relax the atmosphere.

Recording the data
Data were collected using both a video- and an audio-recorder, the rationale being that if one strategy failed, data would still be recorded by the other method. The pilot interview had already shown me that I was unable to keep field notes and simultaneously facilitate the interview, as this required following the flow of discussion and asking questions for purposes of clarification or explanation.

There are inherent difficulties in recording information through video- and audio-equipment, although the benefits can outweigh the difficulties. Polgar and Thomas (1995) state that video-recording is useful for gathering both non-verbal and verbal data. However, Bottorff (1994) warns that microphones may not pick up all verbal behaviour, nor do they record body movements. Participants may refuse to speak in the presence of a camera or may sanitise their views so that true feelings are not represented; this may also be true of audio-recording (Polgar & Thomas 1995). The real advantage of both video- and audio-recording is that they act as validity checks, in that raw data are available for scrutiny (Polgar & Thomas 1995). Furthermore, the provision of recorded data may serve a range of analytical interests. It also allows events to be reviewed as often as is desirable or necessary (Bottorff 1994).

Discussion
I experienced a sense of self-doubt when carrying out focus group interviews as to how much facilitation was appropriate, and there was no question that facilitating each group was different depending on who was taking part. The student groups knew each other and they knew me well as they had come into contact with me as a lecturer for almost 3 years. They communicated well with me and with each other. However, there was a tendency for the students to talk over each other; there were also certain disagreements among them which were entertaining and made for livelier interviews. Mwang et al. (1998), who used a video-recorder in their focus group study, state that participants sometimes referred to the presence of the recorder, especially when swear words or crude references to body parts were involved. However, they seemed to relax and ignore the camera once the interview was underway. In my study, the camera certainly did not appear to have an inhibiting effect on discussions.

There is no doubt that in one of the student groups, a participant used the focus group discussion to have his opinions heard and, once this was done, he settled down and took part in the interview. One participant in the other student interview was unhappy about the discussion heading in a negative direction, and expressed this, but continued to participate. The lecturer group was much more calm than the student groups; this may have been because I was rather intimidated by interviewing my peers. They were also very relaxed with each other. I had decided not to interview lecturers...
from the campus where I worked, but to use lecturers from another campus who were not so well known to me at that time. Although this may have influenced the discussion, the interview was a rich source of data. Dominance, as described by Krueger (1994), was not an issue in any of the groups.

The only interview that needed more or less constant guiding was that with staff nurses from acute areas. I was not so well known to two members of this group and they did not know each other to any degree, and this impacted negatively on group dynamics. This goes against one of the central tenets of focus group interviewing: that having participants who are strangers leads to better interaction and richer data (Krueger 1994).

Millward (1995) identifies four types of content- and process-related moderator style which dictate the relative structure of interviews. Furthermore, she suggests that the most appropriate type for a focus group is low control and high process, in which control over content is minimal but the moderator ensures that all relevant issues are covered in depth. This moderator style was incorporated into my research strategy. However, group dynamics dictate how well this can be adhered to, as there is a tendency to move to a more didactic style if members of the group are discussing issues through the moderator rather than with each other. This was what happened in the group interview that involved staff nurses from acute areas. Moderation of this group was more interventionist than for the other groups, as I had to probe and guide the discussion more than I had done with the previous groups. There may have been a number of reasons for this, including a lack of acquaintance. However, it may be that they did not perceive the topic of the care of older adults as very relevant.

The low numbers of participants in both interviews which involved staff nurses is accounted for by the numbers on duty at any one time. It was very difficult to bring together a sizeable group due to the shift system which includes a night shift, days off and annual leave. Two focus groups had been arranged for staff from acute wards, but potential participants for the first interview did not arrive and only one out of the four informed the researcher. Non-attendance at focus group interviews has been identified as an issue by Webb (2002).

There are disadvantages to relying solely on the use of free-form notes, in that information may be lost during the interview or can be interpreted in a different manner from intended. Britten (1995) states that writing notes during an interview can interfere with the process of interviewing. For these reasons, I completed field notes on the utility of the interview and biases that may have influenced the data once each interview was finished. I explore these aspects below.

The six interviews were completed in approximately 1 hour, as agreed with all participants. All interviews produced good quality data. I was very aware of my biases, and committed to minimizing my influence on the discussion. Nevertheless, an incident occurred in one of the care of older adults interviews, when I challenged one of the participants to explain a remark about how staff nurses were unprepared for working in care of older adults areas.

Moderator effect has been considered by Fern (1982), who compared moderated with unmoderated groups. His findings suggest that there were no differences between the two. However, Agar and MacDonald (1995) warn that moderator control has an important effect on the quality of group discussion, in that too much control can prevent discussion whereas too little control can result in the topic not being discussed. This warning is echoed by Morgan (1996), who states that discussion may focus on the interests of the researcher not the participants, and that too many questions on the moderator guide may indicate this phenomenon. Fern (1982) suggests that perceived differences in the utility of interviews are more likely to be linked to the inhibiting effects of group interaction.

A decision was required about whether to abandon this interview because of the incident or whether to retain it for analysis. The final decision to retain it was made for two reasons: firstly, abandoning it would have wasted the time of participants who had kindly agreed to take part and, secondly, some good quality data were gathered in this interview and this would have been lost to the research. In retrospect, challenging the participant made little apparent difference to levels of participation in the interview.

Conclusion

The main problem with using focus groups is a relative lack of consistency in make-up and content. This is supported by Fern (1982), who states that there is nothing sacred or necessarily correct about the current way of carrying out this type of research. This echoes Calder (1977), who describes a ‘vague sense of uneasiness’ (p. 353) with the focus group technique. Calder puts forward a number of questions about the design of focus groups which, 20 years later, have not been satisfactorily answered. These concerns include the number of groups which should make up a project; the importance of heterogeneity versus homogeneity; and the importance of the moderator as an influencing factor. Morgan (1996) claims that the limitations of focus group design are due to an upsurge in their popularity within social science research over a decade or so. This has led to a bout of activity that is notable for its lack of standardization with
regard to questions and procedures. However, writers do need to be more explicit in their research reports so that there is an increasing body of knowledge available about what works and what does not. This approach will then allow potential researchers to make more informed choices about the use of focus groups in their research.

The process of organizing and running focus groups is time-consuming but, as a data collection strategy, it is rewarding for the richness of the data alone. Positive group dynamics and interaction clearly enhance data collection and, in my study, this was evidenced by a comparison of the data collected from acute care staff and the other groups. They were noticeably less forward in their communication than the other groups, possibly for the aforementioned reasons. This lends support to the view of Powell et al. (1996), who recommend using groups that consist of people who know one another, rather than following the more usual advice that they should be strangers.

References

Kitzinger J. (1994) The methodology of Focus Groups: the importance of interaction between research participants. Sociology of Health & Illness 16(1), 103–121.
Medical Research Council (2000) Personal Information in Medical Research. MRC, London.


