Perils and possibilities: achieving best evidence from focus groups in public health research

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Abstract

Objective: Focus group research is often seen as a cost-effective way of gathering evidence from multiple research participants about the diversity of their views, experiences or beliefs. Our objective is to argue that focus group research only fulfils its potential if analysis of individual views is extended to include analysis of interaction between participants, so that we learn more why people hold these views.

Approach: We outline the literature on focus group research, contrasting the 'quick-and-easy' approach with the demands of studies that are designed, conducted and analysed in a methodologically rigorous way to yield high quality public health evidence.

Conclusion: Well-conducted focus groups contribute good evidence for public health decision making. The challenges of conducting high-quality studies should not be underestimated, and must involve rigorous analysis of both interaction and content.

Key words: focus groups, qualitative, evidence.

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Within the evidence-based medical and public health literature, there is debate about how best to assess the strength of evidence for policy and practice provided by qualitative research.[1,2] A repertoire of methods is available to conduct qualitative public health research and, increasingly, group methods are viewed as a means of gaining insights into a range of health and health service issues. Interviewing participants in groups can range from the highly structured nominal techniques of expert panels to unstructured group discussion conducted as the opportunity arises when doing community-based ethnographic research. A common group interview method in health research is that of focus groups but it is often unclear how focus groups should be conducted in order to produce high quality evidence for practice and policy.

Focus groups are group interviews where 'focused' discussion of a set of issues is moderated by a facilitator.[3,4] It is the interaction between participants that is the defining feature of a focus group.[3,5,6] This interaction allows exploration of personally held ideas and values, as well as examination of how private views are articulated in, and intersect with, publicly held values, beliefs and attitudes.[7] Focus groups lend themselves to situations or settings where sociability is important to the research problem such as, when analysing community development programs, or sometimes when needing to access groups who may otherwise not participate in research.[8] Further, the interaction in a well-facilitated focus group can push the boundaries of discussion beyond what can be achieved in a one-on-one interview.[9] Focus groups can provide deep understanding of how and why people's views differ, the strength of attitudes, beliefs and opinions held, and the factors influencing particular perspectives. Researchers can analyse how social ideas and values shape individual behaviour through attention to the processes of group discussion. Focus groups

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can therefore provide a rich source of data when health workers and policy makers want to understand how policies and practices are accepted in a health or community setting.

Focus groups have a history as a popular method in social research and sociology,[10] organisational research[6] and evaluation.[11] From the mid 1990s, interest in their application to health research has grown.[12,13] Focus groups are also a key research tool in market research, where the emphasis is on economically and rapidly collecting data[14] to address issues relating, particularly, to consumer preferences. The refinements of method in focus group research are not new to experienced qualitative health researchers with a background in social research but may not be as evident to researchers from other disciplines drawn into the arena by the evident attractions of the method. As a result, this model of research may not always provide the quality of research required to contribute to questions of policy or practice.

Health issues, their solutions and the environment within which service provision occurs are often complex. Collecting data from groups of research participants instead of from individuals adds complexity to the research process, both in terms of data collection and analysis. Thus, the choice of a focus group methodology needs to be clearly justified. While this is acknowledged in substantial public health literature, it is the link between the complexity of the method and the quality of evidence generated by focus group research that is often not made.

In this paper we highlight several complexities of the method that are central to the quality of the evidence obtained from conducting and analysing focus group discussion. Our focus is on researchers who are less familiar with the theoretical and methodological debates in the social sciences. Our aim is to present a clear, unambiguous and accessible account of the strengths of the method. We draw attention to the importance of conducting the groundwork prior to data collection, to the interplay between research participants, to the role of group discussion in mediating the responses of participants and to the analysis of focus group data. We argue that these issues are linked to the quality of evidence for policy and practice generated by focus group discussion.

The popularity and pragmatics of simple focus group research

In health research, 'quick and easy' focus groups with opportunistic samples are a popular way of tapping into beliefs, values and experiences. There is a perception that one focus group interview yields the equivalent of 10 or more individual interviews. Reed and Roskell Payton[15] emphasise this instrumental approach when they say, "gathering research participants together for group interviews allows researchers to gather data from a number of participants in one session, thus avoiding the time-consuming processes of individual interviews" (p765). Cost-conscious contracting organisations may even specify that their preferred method is focus group interviews.

Focus groups are a popular means of conducting preliminary studies to inform items for inclusion in, for example, quantitative survey research. They provide impressionistic data − quotations or conversational exchanges that can be illuminating and carry a stamp of authenticity; 'straight from the horse's mouth'. If reviewers are persuaded by the insightful, selected quotations, an article may well pass the barrier of peer review, thus providing a published pilot study to justify a grant application for a more substantive research project.

While focus groups may be used as preliminary, hypothesis-generating studies, we have two concerns. The first is that the data collected in these studies are under-analysed and the conclusions are potentially misleading. A full analysis of data collected is an ethically and methodologically preferable approach. Our second concern is that the overuse of impressionistic focus group studies can devalue the method and lead to the perception by funding bodies and in health journals that focus groups are an easy but low-level research approach, rather than a method capable of providing high-quality evidence when well designed and well conducted.

Achieving methodological rigour when conducting focus group research

Methodological rigour for focus groups is, in many respects, no different to that required for one-to-one interview studies. As in all qualitative research, social theory is used to frame the study approach and identify the social contexts where the most appropriate research participants are to be found.[16] Attention to methodological underpinnings of the research approach is required, and Dew[17] discusses the variants of methodology that stem from social science perspectives. As he argues, such theoretical understanding shapes the research question, contributes to the choice of method and the interpretation of data. Focus groups present an additional dimension of complexity for researchers. The focus on interaction in focus groups will drive how the research is framed, will affect sampling, recruitment and participation and requires data analysis that incorporates individual and group contributions as well as group interaction.

Attention to interaction in focus groups has drawn vigorous debate about group composition − who is likely to contribute, what factors will inhibit or enhance individual contribution, and the extent to which the interaction can be interpreted as indicative of broader social beliefs and values. The focus group composition debate has centred on whether members should be homogeneous or heterogeneous, drawn from existing social networks ('natural') or composed of strangers brought together specifically for a discussion on the topic under study ('constructed').[18,19] There is concern about whether group dynamics suppress particular views or polarise others.[13] However, whether groups are homogeneous or heterogeneous, as Ezzy[18] explains, "group processes operate in both cases and the aim of the interpretative researcher is not to avoid these processes but to evaluate how they shape the information obtained" (p296).

Whether groups are constructed or natural, the problem of sampling is the first hurdle. Instead of sampling in a flexible way for a series of one-on-one interviews during which sampling may change in response to emergent analysis,[20] researchers conducting focus groups can only practically sample for a limited number of

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groups. Each focus group represents a sampling unit. Given the resource cost of setting up these groups, the issue is for each group to generate rich information relevant to the research problem. This means that researchers have to know who the best informants are, and it is through a careful literature review, knowledge of relevant theories, as well as clarity about the methodological underpinnings of the study, that researchers can begin to identify these groups.

The next step is to assess their willingness to participate, bearing in mind that confidentiality is difficult to achieve in a group discussion. Research participants must be present at the same time on the same day, at a venue that is acceptable to all parties, and be at sufficient ease to contribute to an interactive discussion. It is easier to meet these conditions if the groups identified as important already congregate in specific locations. Here it may be possible to find sympathetic organisers to help set up the focus groups. Each focus group may, however, need to be conducted in a different location.

It helps if researchers forge strong and mutually beneficial relationships with community organisers who may have a 'gatekeeping' role. These organisers can arrange a meeting for the researchers to explain their study to the group, to demonstrate its perceived value and to establish rapport with group members. This allows for the tailoring of protocols and personal interactions (style of language, literacy and language levels, provision of suitable refreshments, etc). Community organisers provide insight into community tensions and dynamics (who are the leaders, key influencers of opinion) and they help to deal with unforeseen circumstances such as a death in a community requiring rescheduling of a meeting.

Clearly, focus group research becomes ever more difficult to conduct if a group seen as important to the research does not gather in a defined and accessible setting. In such cases the time taken for setting up groups and interviews can become formidable. Again, community organisers can provide local information on potential interview venues and on the availability of other workers such as interpreters and childcare staff acceptable to community members. They can assist researchers to ensure that the venue is accessible to participants and conducive to private discussion so that quality audio recording can be achieved. In some circumstances, strategic location of the venue may be necessary to avoid inadvertent disclosure of participation and ensure protection of participant anonymity outside of the focus group setting.

During the actual conduct of the focus group, there is good reason for more than one researcher to be present. The flow of discussion may be so fast that one researcher alone may not be able to keep to an interview guide. When there is group activity or movement during the interview, a tape recording may need to be supplemented by extensive field notes and memos. Where discussions are mediated by other participants like interpreters, it must be clearly stated why such mediated discussion will generate data not possible through other means. For example, the use of interpreters means there is complexity in picking up the nuances of the discussion, in maintaining conversation when spontaneity is lost, and in ensuring that interpretation accurately reflects the discussion.[21]

Analysis of focus group data presents a challenge, starting with the task of accurate transcription of sometimes overlapping speech. Focus group discussion cannot be analysed in the same way as one-on-one interviews, even though many analytic procedures may be similar.[22] With three layers of data − the individual, the group, and the group interaction[23] − analysis requires attention to the dynamics of the discussion, the type and range of speech acts (verbal and non-verbal), the context within which discussion occurs and the group production of content.

This has implications for recording data. Audio-recordings must be comprehensive enough to include nuances in expression, and the data should also comprise field notes collected by trained co-facilitators.[24] Stevens[25] proposes a list of analytic questions to guide analysis of the interactions and to uncover meaning at the group level which we have drawn together to characterise elements of analysis (see Table 1).

The dynamics of the discussion can inform not only the strength of views held, and the level of consensus, but the way that consensus or disagreement may be achieved. Reed and Roskell-Payton[15] demonstrate how examining the 'sequence of discussion' assists in understanding the variation in perceptions and enables the researcher to make sense of what may appear to be contradictory statements in the unfolding of the discussion.

Kitzinger and Farquhar[26] point to the way that 'sensitive moments' in focus groups may deepen understanding of public health issues that are viewed as private, sensitive and controversial. Data analysis should, therefore, comprise examining verbal and non-verbal expressions, discontinuities in interaction, the strategic use of humour, and discord between participants.[7] In research on sexual behaviour, Wellings, Branigan and Mitchell[7] illustrate the

Table 1: Analysing group interaction.

Group component	Aspect of interaction for analysis
What?	What topics/opinions produced consensus?
	What statements seemed to evoke conflict?
	What were the contradictions in the discussion?
	What common experiences were expressed?
	Did the collective interaction generate new insights or precipitate an exchange of information among participants?
Who?	Whose interests were being represented in the group?
	Were alliances formed among group members?
	Was a particular member or viewpoint silenced?
How?	How closely did the group adhere to the issues presented for discussion?
	How did group members respond to the ideas of others?
	How did the group resolve disagreements?
	How were emotions handled?
	How were non-verbal signs and behaviours used to contribute to the discussion?

(adapted from Stevens, 1996: 172)

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use of humour by a participant who acknowledges to the group that his behaviour goes against the social norm by the tone he uses and specific language (the word 'information'):

"Yeah it was a one night job [said jokingly] (group laughter) and erm… you see that's why I was really a bit worried you know, because I didn't know her. So…a friend knew her too. So I got information (laughter). Sorry − I know that's bad innit? But…" (p260)

In the same project, they also witnessed discord about safe sex practices through the following exchange between a male and female participant − a challenge to a participant perspective not achievable in a one-on-one interview situation and opening up the discussion to exploration of gendered responses about safe sex:

Male: I had unprotected sex with her and she really had a go at me because she had to go and get the morning after pill. She really, really dug the knife in, saying that I was a real bastard and everything even though she was just as up for it as me, you know?

Female: Yeah, but it's different the next day when one of you has got to take a pill that makes you vomit for three days and the other one hasn't (p262).

It is also important to reflect on how the context of the discussion may shape the information gained. For example, understanding the impact of structural differences such as social class, gender or ethnicity on the interaction may require greater attention to subsequent focus group composition as well as being extremely illuminating about broader social relationships.

Recurrence of ideas may be only one indicator of the strength of evidence when analysing focus group data. Brief intense discussion of an issue may be as, or more important, as lengthy, negotiated but superficial coverage. Frequency of discussion of specific topics may not be as relevant as diversity of opinions. The task of the analyst is constantly to question how interaction may indicate consensus, negotiated understanding, or disagreement. For example, did participants have clear views that were consistently held throughout the discussion or did their views change as a result of listening to others? Group dynamics are important and constitute data to be analysed. If some participants do not participate this needs to be explained and may require that researchers follow up, either at a group or an individual level, to ascertain whether group dynamics, the topic being explored or other extraneous factors have affected participation.

As illustrated by Wilkinson, Rees and Knight[27] delving below the surface to explore the meaning of interaction between participants is challenging but rewarding. They analysed the use of humour in their research on service user involvement in medical education and found that analysis of interaction revealed attitudes to service users not apparent from the content of the focus group. In a focus group study conducted by one of us (KW)[28], rural middle-aged men who were unemployed or on disability support pension discussed their encounters with medical practitioners. What started off as a discussion about the medical encounter rapidly turned into an information-sharing discussion about complementary or alternative therapies (CAM) available in their area. The strength of views expressed and the eagerness of others to find out about their fellow participants' experiences made for extremely rich data, analysed less in terms of content (which captured the diversity and cost of CAM therapies in the area) and more in terms of what these exchanges revealed about their general dissatisfaction with medical options for their (mostly) chronic disorders, their need for good health information, and practitioners' preparedness to take an holistic view of their situation. Through stories, and dry-humoured comments, men also discussed their position in a social structure of disadvantage where their age, gender and social class impacted on their experiences, and once they started talking about their social position, the data was replete with meanings shared through anecdotes and humour, the painfulness of which was powerfully obvious.

In interpreting the data (both content and interaction), the analyst is less concerned with whether the information presented by participants is 'objectively true', and more interested in the way that such information is presented and received within the group and how group interaction may challenge or confirm people's stated views. As Silverman[29] states, 'by analysing how people talk to one another, one is directly gaining access to a cultural universe and its content of moral assumptions' (p113). As people make choices and decisions about their health on the basis of ongoing interaction and information,[30] focus groups can be invaluable in informing public health researchers about what may influence health perceptions and decisions, as well as how people wish to be perceived by others when discussing health issues.

What evidence do focus groups provide for public health?

To examine how focus groups can provide evidence in a public health context, we draw on a qualitative hierarchy of evidence for interview studies.[1] In this hierarchy, descriptive studies are limited in the strength of evidence they generate, conceptual studies can provide good evidence, and generalisable studies are those high quality studies that provide the strongest evidence. We demonstrate that use of high quality focus group methods can provide evidence that not only describes the situation at hand, but properly located in a conceptual framework and well-analysed, can provide credible and trustworthy evidence, the strength of which can be generalisable to other groups or settings.

Descriptive studies

Descriptive studies provide useful insights into a problem. They are particularly useful in an area not well understood or where little previous research has been undertaken. In the following example, Mikhail et al.[31] report on a descriptive focus group study exploring changing decision making about prescribing non-steroidal anti-inflammatory drugs in general practice. The authors set up five focus groups. Eleven GPs (five registrars and six experienced GPs) participated in three focus groups and 20 patients aged between 54 and 85 years were interviewed in two focus groups. The authors report on topics where there was 'general consensus' as well as the views of 'some' participants, in each case illustrated with quotations with no indication of how the quotes were selected.

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They conclude that their study 'provides insights' into recent debates about the use of these drugs. It is unclear why focus groups were selected for the research purpose and while we are given an overview of the data, they do not explore and explain the findings. There is no analysis of interaction, exploration of the dynamics of each group, and of competing and contradictory expression of viewpoints.

The study above represents the many reported studies of focus groups that are limited in the evidence they contribute because there is no explanation of the methodological rationale for a focus group study, sampling strategies are limited and, importantly, the reported analysis frequently pays no attention to the interactive component of the focus group study, limiting itself to content and assuming a 'sameness' with one-on-one interviews.[32,33] Reporting of data often relies on a selection of emotive quotations that describe views on the topic at hand, rather than deepening our understanding of it. The simple provision of a selection of contradictory and decontextualised statements makes it difficult to ascertain the extent to which the findings, and thus the conclusions, are trustworthy.

Conceptual studies

Focus groups reporting both interaction and content can provide stronger evidence. Widmark et al.[34] used focus groups to examine women's decisions about cervical screening attendance. They drew on changing understandings about health, the body and preventive health to inform the study. As they were interested in examining the ideas that informed women's decision making about screening across the lifespan, focus groups comprised women aged 21-74 years and included regular screening attenders and non-attenders. Transcripts were coded not only for content, but for interaction, including level of participation. Additional focus groups were held to ascertain whether there were differences in interaction between women who knew each other and those who did not, finding no difference. The key theme of 'control' emerged as critical to understanding ideas about screening, with the authors noting that screening can be seen both as a means of maintaining control and as a way of losing control. In discussing their findings the authors suggest different motivations for health behaviours according to age, but do not really account for the differences that they found.

The researchers identify a mismatch between health information needs and information provision. While their findings are not extended to suggestions for policy and practice, this research provides good evidence of the need to re-consider the type and amount of information provided to women. Women identified specific information needs that varied according to their age/stage, for example, younger women expressed the need for more information about 'urinary tract and yeast infections', and older women expressed the need for information about hormone replacement therapy. All women discussed how they did not want to be 'bombarded' with information.

Generalising from focus group findings

Studies that provide the greatest strength of evidence are those that are generalisable beyond the study population alone. Policy makers and public health practitioners are most concerned with the translation of research findings into practice, and while various terms relating to research rigour can be found in the qualitative literature (such as trustworthiness, transferability, etc.) we argue that researchers in public health need to explicitly identify the extent to which their research results are generalisable. Generalisable findings may relate to similar groups or settings as those studied, or to the robustness of particular concepts or theories.[3] Because they are grounded in theory and articulate a clearly justified research design and implementation, such studies have wider implications for policy and practice.[1] While stand-alone focus group studies may be generalisable in their own right, generalisability may also be achieved by using focus groups as a part of a broader study.

Warr's[9] study of young people and intimacy was informed by contemporary theoretical work linking personal and interpersonal experiences with broader social and economic changes. The theoretical constructs Warr used led her to focus on how broad social patterns of change in sexual conduct are experienced by disadvantaged young people and were integral to the decisions she made to use a focus group method as the method of choice, rather than one-on-one interviews. Her groups were drawn from pre-existing groups of young people disadvantaged by long-term unemployment in both rural and urban settings, and with a range of class backgrounds.[35] The interaction between participants, as they discuss ideas of love and intimacy, is thoroughly presented in her analysis of the focus group method used.[9] Differences between groups of blue collar, mixed gender, same gender, friendship-based and newly-formed group participants are also discussed and accounted for thoroughly, as are the dynamics within groups. Warr's comprehensive reporting of the analysis of the discussion and the interaction generates a confidence in the sociological insights that this study offers. In linking personal biographies of conducting relationships to public issues such as social conditions, social disadvantage and economic uncertainty, Warr provides strong evidence that public health policy and practice intended for young adult populations should account for the experience of disadvantage and, at a broader level and more significantly, to address it.

According to Warr[9] "triangulating focus group data with data gained through other research methods should be done with caution and awareness that the focus group method taps into qualitatively different processes of account making" (p221). While to some extent we agree, we argue that where the rationale for using different methods is clearly established, 'nesting' a focus group component within a broader study potentially provides a range of insights into an issue that would not be achievable using a single method. Such studies, while increasing complexity, can provide stronger evidence for policy and practice.

Using focus groups in mixed method research

Westhues et al.[36] demonstrate the complexity of method needed to generate theory and practice implications from a mixed method

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approach. Their study aimed to investigate and evaluate how best to provide community-based mental health services and supports for people from culturally diverse backgrounds. Their approach, participatory action research, is explicitly discussed and embedded in the study. Focus groups formed one of four methods used. The authors indicate how the focus group data contributed to the overall theory-building of this project. Focus group methodology made a unique contribution in providing personal perspectives and in helping shape an understanding of the socio-cultural determinants of mental distress and the nature of existing knowledge. These data, firstly analysed distinctively, then as part of a synthesising analysis across multiple methods, contributed to community perspectives on stigma, understanding of powerlessness, and the need for community empowerment. Observation of group dynamics and discussion by focus group participants also contributed to development of their theoretical model, particularly around the capacity to discuss mental health problems in a community setting. The discussion of this project, in which no analytical stone went unturned, centres on the development of theory to inform culturally competent practice in community mental health settings. The evidence from this study lends itself to being generalised to promote mental health and wellbeing to other cultural groups re-settling in a host country or, indeed, to communities more widely.

Conclusion

Our aim in this paper has been to provide an accessible insight into the use of focus groups in high quality public health research. Far from being a quick and easy way of obtaining qualitative evidence, focus groups are demanding of time and resources. However, when well-conducted and justified, focus groups can provide evidence about specific health issues, issues of professional or consumer behaviour, and the ways that the social context influences health beliefs and values. The rationale for conducting focus groups is exploration of interaction, and thus, understanding the importance of the context within which data is created, and analysing the group processes alongside the content can provide insights that are not available using one-to-one interviews alone.

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