Making sense of focus groups
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CONTEXT This paper provides an overview of the contribution of medical education research which has employed focus group methodology to evaluate both undergraduate education and continuing professional development.

PRACTICALITIES AND PROBLEMS It also examines current debates about the ethics and practicalities involved in conducting focus group research. It gives guidance as to how to go about designing and planning focus group studies, highlighting common misconceptions and pitfalls, emphasising that most problems stem from researchers ignoring the central assumptions which underpin the qualitative research endeavour.

PRESENTING AND DEVELOPING FOCUS GROUP RESEARCH Particular attention is paid to analysis and presentation of focus group work and the uses to which such information is put. Finally, it speculates about the future of focus group research in general and research in medical education in particular.

KEYWORDS education, medical, undergraduate/ *methods; *focus groups; research design/ *methods; curriculum.

Medical Education 2005; 39: 742–750
doi:10.1111/j.1365-2929.2005.02200.x

INTRODUCTION

Although focus groups have become an increasingly popular method within health research there is considerable confusion surrounding their use. This stems from the existence of several separate and potentially contradictory focus group traditions. These are: marketing research, organisational research, community development and social science.1 Focus group discussion, however, is an inherently flexible method and there is considerable scope to draw on all these traditions. Part of the confusion has related to how focus groups should be defined. In order that full advantage can be taken of the myriad possibilities of this approach it is advisable not to enforce too strict a set of criteria: ‘Any group discussion may be called a focus group as long as the researcher is actively encouraging of, and attentive to, the group interaction.’

The history of focus group applications by health researchers has closely paralleled the gradual acceptance of qualitative methods per se.2,3 Until relatively recently the recommended use of focus groups in health research tended to be confined to hypothesis generation; testing and implementation in the preliminary stages of a project;4,5 to developing questionnaires; interpreting quantitative studies;6 or designing intervention programmes. In addition to their use in the context of mixed methods projects, recent years have witnessed a growth in the number of studies using focus groups as their principal method.

THE USE OF FOCUS GROUPS IN MEDICAL EDUCATION RESEARCH

Use as exploratory method

In common with much health services research, medical education research has traditionally relied heavily on questionnaires. Focus groups have been used by several researchers during the initial phase of studies to develop items for inclusion in surveys of medical undergraduates. The role of focus groups in such an approach is to ensure that the questions being asked are appropriate and easily understood by respondents7–9 and that these are contextually relevant.10 Focus groups are also useful in designing...
Overview

What is already known on this subject

Focus groups are a popular and well-established method in medical education research.

What this study adds

Although there is a substantial literature on running focus groups they are not always used to their full potential. Most problems stem from researchers failing to use focus groups as part of the qualitative approach and ignoring some key assumptions.

Suggestions for future research

- Future use of focus groups should pay attention to issues of research design in general. Particularly important are sampling decisions, which provide opportunities for comparison.
- Systematic comparison and an awareness of the limitations of the study enhance theoretical generalisability.

Usefulness for eliciting the student perspective

Focus groups also lend themselves readily to an approach which builds on the community development tradition and which has allowed researchers in medical education to take cognisance of some of the attitudinal and policy shifts in relation to how medical practice and the medical profession is currently perceived. The NHS White Paper *Local Voices*16 marked an important move towards allowing the views of the public to play a greater role in setting health care priorities. The recognition of the need to incorporate the patient’s voice has given rise to a body of work which relies heavily on the use of focus groups, and which has allowed researchers to carry out studies in partnership with patients, in identifying barriers and seeking to work together to address these.17 Within medical education research this has led to a growing emphasis on the need to elicit the student voice, rather than merely reflecting the concerns and assessment criteria of those responsible for designing, delivering and evaluating the curriculum.13,18 The growing focus on the student voice has also led medical education researchers to question the ascendancy of the questionnaire as the research tool of choice. In a study of public views on priority setting in health care, Dolan et al.19 cast doubt on ‘the value of surveys that do not allow respondents the time or opportunity to reflect on their responses’ (p. 919). Similarly, some medical education researchers have sought to combine questionnaires with focus groups,20,21 while others have relied exclusively on focus groups to elicit student views.22

Focus groups have proved useful in accessing hard-to-reach groups such as members of ethnic minority groups1 in order to find out about their service use, health beliefs, preferences and experiences. Homogeneous groups offer participants a relatively safe environment in which to share their experiences and, with regard to medical education research, dilute the power imbalance between researcher and researched by taking advantage of the naturally occurring peer group. This can pay dividends in encouraging relatively uninhibited discussion. This was what Lam et al.18 found in relation to focus groups designed to evaluate the medical curriculum being delivered in Hong Kong, where group discussions enabled students to exchange their views in colloquial Cantonese, whereas questionnaires would have required them to answer in English – a benefit to which the students themselves drew attention when their views on taking part in the research were sought retrospectively.

Usefulness for studying change

Marketing researchers have been quick to exploit the potential of focus groups to capture both fleeting public preoccupations and significant changes as these unfold. Recent years have seen far-reaching changes in medical education, particularly in relation to the adoption of problem-based learning and the ensuing redesign of medical school curricula. Whereas survey research based on end-of-course outcomes would not be able to deliver results until some time after the first cohort of students had successfully completed the new curriculum, focus group research can provide valuable insights into interim progress and, most importantly, process. Following analysis of focus group discussions, O’Neill et al.22 developed a model for explaining how medical students on a new integrated course at Manchester University linked problem-based learning with clinical experiences. The advantage of carrying out in-depth research such as this mid-way through the new curriculum is that it can feed back into and shape course planning within a much shorter timescale. O’Neill et al.22 took this a step further, using their data to interrogate existing theoretical frameworks to develop a model for use in medical education.

Alongside these changes in the undergraduate curriculum, there has also been a shift in focus from ‘continuing medical education’ to ‘continuing professional development’, which involves medical practitioners in setting their own goals and which gives recognition to a wider range of professional activities. Saidi and Weindling23 used focus groups in their evaluation of a new continuing professional development (CPD) scheme for paediatricians in the South of England. Through eliciting the views of both CPD attenders and non-attenders they were able to identify barriers, and established that part-time paediatricians and those practising in rural areas experienced particular difficulties. The focus groups generated suggestions regarding the format used for recording CPD and led to changes being made. While it would probably be impossible to measure directly the impact of CPD on clinical practice using conventional methods, these focus group discussions drew attention to more subtle, but equally important, ways in which paediatricians considered that their clinical practice had changed, as a result of their CPD activities. Another study24 used focus groups to evaluate extended general practice training in the context of Northern Ireland, where GP registrars received an additional 6 months’ training. Comparing the views of those registrars who had enjoyed the extended training with those who had undergone the traditional 12-month training, Sibbett et al.24 observed that study pressure appeared to have made those who had undergone the shorter training period averse to further continuing education, whereas those who had undergone extended training considered they had benefited from the potential to focus on patients rather than having to concentrate merely on passing examinations.

Providing insights into CPD

As well as influencing the focus of research concerned with evaluating medical curricula to include the student voice, the emphasis on patient involvement has engendered new approaches to medical practice per se. While this is likely to be reflected in the content of new medical curricula, it is also important to study the views of those slightly further advanced in terms of their medical training – particularly as they, too, have an important role to play in shaping ‘tomorrow’s doctors’. Recognising that differences in practice are likely to require more than injunctions to practice ‘shared decision-making’ Elwyn et al.25 sought to capture through focus group discussions how, for general practice (GP) registrars in South Wales, the principle of ‘involving patients’ resonated with clinical practice. Using an innovative approach which involved simulated patients and debriefing sessions, this study highlighted the existence of a spectrum of views on the desirability and practicability of involving patients, ranging from the very positive to the negative. Moreover, the in-depth data which they generated on the processes involved in seeking to implement this approach to medical encounters illuminated the complexities involved. Importantly, the study established that involving patients is a process, rather than an event, and that it relies on the context. Collectively interrogating the idea of patient involvement in decision-making, GP registrars identified the need for different approaches in situations where patients wanted treatment at variance with medical evidence and conceded that they would anticipate patients’ wishes and subtly – or not so subtly – alter the emphasis of the information they provided in order to ‘steer’ patients towards a desired decision, sometimes choosing not to list all available options. Interestingly, this study also included the simulated patients in the focus group discussions following the ‘practice consultations’. This is a prime example of focus groups enabling researchers to ‘reach the parts that other methods cannot reach’.26
Accessing the hidden curriculum

As Britten et al.27 have pointed out, ‘Qualitative methods are particularly appropriate when researching a previously unexplored topic, or one that is poorly understood or ill-defined.’ Focus groups have proved their worth in providing insights into those aspects of the medical curriculum that are not amenable to study using more conventional quantitative methods. Having ascertained by questionnaire that nearly half of all students nearing the final year of their medical training at Toronto University considered that they had been under pressure to act unethically during a clinical placement, Hicks et al.20 used focus groups to provide further insights into what they term ‘the hidden curriculum’ which shaped students’ ethical development. They found that students experienced ethical dilemmas in relation to three types of situation: those where there was a conflict between the needs of medical education and patient care; where they were required to assume responsibility in excess of their capabilities; and where they were involved in care which they perceived to be substandard. Moreover, the research also highlighted that, for final-year medical students, ethical problems were seldom resolved or discussed with clinical tutors. Similarly, Rennie and Crosby21 used a mixed methods approach, combining questionnaires and focus groups to study medical students’ perceptions of whistle-blowing. Having found (using a questionnaire) differences in the readiness of students in different years of the medical curriculum to report misconduct by other students, focus groups were employed to explore students’ reasons. Among the reasons given for not whistle-blowing included camaraderie, retaliation by peers, self-preservation and a belief that it is not a student’s responsibility to report the misconduct of his or her peers. The findings, argues Rennie and Crosby,21 suggest that medical education should concentrate on positive motivating factors and that it should address, as a matter of some urgency, the need for other methods for detecting misconduct in the undergraduate setting.

Understanding problematic areas of medical practice

Other research using focus groups has made an important contribution in terms of informing the medical curriculum either explicitly, as with a study28 designed to determine the educational needs of primary care physicians with regard to the management of asthma, or implicitly through providing an enhanced understanding of problematic areas of professional practice. Such issues include the ethical and professional challenges raised for nurses, doctors and genetic counsellors by patients with genetic concerns,29 by Advance Directives30 or sickness certification.31 Focus groups have been used to study the views of GPs, nurses and patients on guided self-management plans for asthma32 and to explore barriers to accurate diagnosis and effective management of heart failure in UK general practice.33 The findings from such work have an important role to play in informing both the content and focus of medical education.

Summary

The above review certainly shows that medical education researchers have eagerly embraced the focus group method and that the practice of medical education can benefit by taking account of the findings of a wide range of studies which have employed this method: either to evaluate the medical curriculum or new educational approaches; to explore aspects of medical education which would, otherwise, prove inaccessible; to look at how medical practice and medical training are responding to new policy initiatives; to highlight areas of medical practice which are problematic and to suggest ways of tackling these via medical curricula or CPD programmes; and to inform approaches to teaching about research. However, they have not always used focus groups to full advantage – due mainly to a lack of appreciation of the implications of focus groups as a qualitative research method. This has sometimes involved a clash of cultures which has resulted in the neglect of the pervasive importance of ‘context’. As Borkan34 points out: qualitative research is characterised by a focus on context ‘from conception to dissemination of results’ (p. 70). This has implications for research design and the ways in which focus group research has been put into practice.

RESEARCH DESIGN AND PRACTICALITIES

Appropriateness of focus groups

One of the most common myths surrounding the use of focus groups is that they allow for research to be carried out more quickly and more cheaply than other methods. Morgan and Krueger35 have attempted to dispel this myth and others, such as Kitzinger and Barbour3 and MacLeod Clark et al.,36 have provided details of the additional costs likely to be involved, including room hire and transcription. In the context of medical education research, Lam
As Twohig and Putnam et al. reflect that focus groups were more labour-intensive and expensive than the more commonly used questionnaire approach.

Focus groups should not be used as a substitute for a survey or one-to-one interviews. They can achieve much more than simply provide a window onto subjective experience. As David Morgan is frequently quoted as having pointed out: ‘Focus groups are useful when it comes to investigating what participants think, but they excel at uncovering why participants think as they do.’ In order to gain the full benefits from using focus groups, however, it is important to consider carefully their appropriateness to the study in hand and how they can be used to advantage.

As Twohig and Putnam point out, although the many focus group guides and textbooks are useful they ‘are not a substitute for reflexive practice’ (p. 298). As with other research methods, where advice abounds not all of it is germane to the task in hand. Until relatively recently much of the received wisdom concerning group composition and conduct of focus group discussions was provided by marketing research texts. While these are extremely useful with regard to techniques for stimulating discussion they are not always so relevant when it comes to other specifics.

**Sampling**

For instance, because marketing research is ultimately concerned with establishing the probable response to new products or advertising campaigns at a national level, a central concern relates to recruiting representatives of all potential groups in order to draw generalisable conclusions. It is for this reason that marketing research texts advise against recruiting to focus groups people who already know each other. However, with regard to both health services and medical education research we have ready access to other methods should this be our primary concern. Certainly representativeness would be a concern with regard to a survey of undergraduates. However, when seeking to illuminate the processes involved in acquiring knowledge and developing competence in reasoning and clinical skills it would make more sense to access students in naturally occurring groupings, such as tutorial or friendship groups.

Some published papers arising from focus group studies continue to use a sampling strategy based on random sampling. This, at best, produces a sample which is broadly representative but which is unlikely to help in recruiting the diverse range of participants required for qualitative research. It is much more appropriate to use ‘purposive’ or ‘theoretical sampling’, whereby the researcher speculates as to which groups of people are likely to have different views or experiences and uses these categorisations to guide recruitment and group composition. Interestingly, Lam et al. comment that in their evaluation of the Hong Kong medical curriculum they used random sampling in response to the concerns of some faculty members who stressed the importance of obtaining a representative sample. This highlights the importance of the organisational and academic context in which research is carried out.

Ethical and practical issues are closely related with regard to making decisions about sampling. It is crucial for the researcher to consider the probable impact on pre-existing groups of sharing their views on particular topics and on exposing vulnerable individuals to others, or even to bring together individuals from different levels in an organisation.

**Comparison**

With regard to the debate as to whether to recruit on the basis of homogeneity or heterogeneity it is important to bear in mind the primary purpose of focus groups, i.e. stimulating discussion and affording comparison between groups. Ideally, the focus group researcher should aim for enough diversity within groups to stimulate discussion and sufficient homogeneity to facilitate comparison between groups.

Recognising the importance of maximising the potential for comparison, Jones et al. purposively selected one group of GPs with a special interest in asthma, and one group of GPs offering ‘normal pragmatic care’ in order to explore the impact that this had on perceptions of self-guided asthma management plans. Similarly, they divided patients by gender and according to whether they could be classified as ‘compliant’ or ‘non-compliant’. The nurses’ groups comprised individuals employed in practices other than those in which selected GPs were working in order to maximise the number and type of practices covered by the study. Again, the focus is on the potential for comparison – quality rather than quantity.

Other considerations come into play in deciding, for example, whether to convene mixed professional or single professional groups. The decision depends on...
the focus of the research and the importance of eliciting peer group perspectives.

Recruitment and settings

The role of gatekeepers is also extremely important and it is crucial to brief such individuals thoroughly with regard to the purpose of the study in question, in order to optimise diversity in recruitment.1

Focus group researchers also need to be flexible with regard to where they hold focus groups in order to maximise participation. There is no such a thing as a neutral or ideal location.1 Of course, the location has an influence on the discussion, but experienced researchers should be able to use this constructively as a resource in analysis. Within the context of researching student experiences of the medical curriculum the classroom may seem the obvious choice but, for some topics, it might be worth considering running groups in spaces frequented by students in their leisure time, which may facilitate the sort of informal – and, hence, perhaps even more illuminating – discussions routinely engaged in with members of their peer group.

Running groups

As with all aspects of focus group study design, time spent developing and piloting a topic guide should pay dividends in terms of its capacity to encourage discussion. Stimulus material can be valuable, but should be used with caution and, if possible, piloted. Materials such as advertisements, newspaper clippings, items from TV soaps, health promotion leaflets and cartoons can all stimulate discussion and also, at the analysis stage, facilitate comparison between groups.1 Jones et al.32 used vignettes drawn from an earlier study to explore patients’ views of guided self-management asthma plans. As for moderator’s skills these are similar to those required to carry out one-to-one interviews. However, focus groups have the added potential to allow the researcher to compare and contrast participants’ views, by subtly pitting one against the other.44 This involves the researcher in thinking on his or her feet, anticipating analysis even as data is generated, and capitalising on insights offered by participants as they share in the task of making sense of their own experiences and views.

ANALYSIS

Analysis of focus group data involves much the same processes as does analysis of other qualitative data, focusing on the identification and refinement of themes and subcategories.5 As with other analyses the main challenge lies in being systematic and thorough45 and moving from the descriptive to the analytical as the researcher attempts to provide an explanation for the patterns identified in the data. The key to using focus group data analytically is the utilisation of opportunities for comparison,46 and paying attention to exceptions – the process of ‘analytic induction’,47 which involves revision of emergent explanations in the light of disconfirming cases or comments.

There are, however, some additional challenges associated with analysis of focus group data. Focus groups can overemphasise consensus. Sim48 warns: ‘An apparent conformity of view is an emergent property of the group interaction, not a reflection of individual participants’ opinions’ (p. 345). However, this does not preclude group-based comparisons: rather, it is important that such comparisons focus on the content and process of discussions instead of relying on a summary of the outcome or agreement reached at the end of the session.

Reporting focus group research

Related to the potential to neglect comparisons is the tendency in some analyses to overlook the interaction within the group and to succumb to the appeal of presenting data in the form of quotes from individuals.49,50 This suggests that focus groups are being used as ‘proxy interviews’ and shares some of the problems associated with the practice of using focus groups as proxy surveys, i.e. it misses the full potential of focus groups to illuminate the processes involved in coming to decisions, weighing up information or formulating solutions. Where focus groups are used as proxy surveys there is also the problem of inappropriate quantification of findings. Because the sample is not representative no statistical significance can be attached to numbers – however, many focus groups are carried out. If the desired answer is a number then the question does not indicate the use of focus groups as the method of choice.

The goal of qualitative research is ‘transferability’ rather than statistical generalisability.51 However, ‘theoretical generalisability’ is a feasible goal. Sim48 provides a useful definition of ‘theoretical generalisability’:

Here, the data gained from a particular study provide theoretical insights which possess a sufficient degree of generality or universality to allow
their projection to other contexts or situations which are comparable to that of the original study. The researcher recognises parallels, at a conceptual or theoretical level, between the case or situation studied and another case or situation, which may differ considerably in terms of the attributes or variables that it exhibits’ (p. 350).

It is important to strike a balance between extrapolating widely on the basis of one’s findings and placing appropriate limitations on these. Thus, reporting on their findings from a study of GP registrars’ perspectives on shared decision-making with patients, Elwyn et al. comment: ‘These practitioners were in transition between the “hospital based” clinical environment and the culture of general practice; experienced doctors might react differently’ (p. 736). Such qualifications are also of crucial importance in that they frequently herald possibilities for further research, thus contributing to the knowledge base in another way.

Respondent validation is often seen as a prerequisite when reporting on qualitative research. However, this is far from straightforward and its value will depend on the research. There can be ethical as well as practical problems and careful consideration should be given before providing written transcripts of group discussions. Reconvening groups, in any case, is often impractical and, even if this were possible, the group dynamics would not be the same. In most cases feeding back preliminary findings in the form of a dissemination session is probably the most useful approach. However, given the potential of such sessions to generate further data, it would seem to be a pity to limit these to validation of findings – particularly in the context of medical education.

THE FUTURE

It is essential that health researchers continue to take a critical perspective with regard to the use of focus groups, lest the method and its capacity to provide valuable insights become diluted. This involves engaging with methodological debates and ensuring that the design of focus group studies and the process of data analysis is congruent with the qualitative tradition, rather than simply adding focus groups to the methodological toolkit without considering their fit with the dominant paradigm of the study in question.

Given the large number of papers using focus groups which have been submitted to journals there has, understandably, been some concern as to how to appraise these critically. For some (e.g. Heary and Hennessy) the answer is seen to lie in conducting an extensive scoping exercise in order to determine the evidence base for the most effective study design using focus groups, i.e. by deciding once and for all whether large or small groups, stranger groups or peer groups are best. This approach, however, misses the point, which is ultimately ‘fitness for purpose’, which can be deduced only after giving careful consideration to the precise context in which a piece of research is to be carried out. Focus groups are an inherently flexible method and any attempt to produce a watertight template for their use can only serve to diminish research creativity and innovation.

Focus groups can play an important part in this future, but only if used judiciously. However, as with qualitative research more generally, the time has come to consider how best to synthesise the findings from focus group studies, if these are to make a significant contribution to the knowledge base.

Contributor: the author personally undertook and analysed the research and wrote the paper.

Acknowledgements: none.

Funding: not applicable.

Conflicts of interest: none.

Ethical approval: not applicable.

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Received 20 April 2004; editorial comments to authors 2 August 2004, 26 January 2005; accepted for publication 9 March 2005