



Misconceptions of Focus Groups: Implications for Health Education Practice

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ABSTRACT

Health educators use several data collection techniques involving qualitative and quantitative methods. One common qualitative data collection technique is the focus group. Although a focus group, when utilized appropriately, can yield useful information, too often in health education practice it is misunderstood and thus misused. This article describes four general misconceptions about the focus group: (1) the focus group is quick, easy, and inexpensive; (2) the focus group can be used as a source of quantitative data; (3) only one or two focus groups are necessary; (4) the focus group opinion accurately reflects or represents individual opinion. A clearer understanding of these concepts will assist health educators to effectively use focus groups to advance health education research and practice. Based on the four misconceptions, suggestions are provided to assist health educators in using focus groups appropriately.

The document *A Competency-Based Framework for Graduate-Level Health Educators* (National Commission for Health Education Credentialing, 1999) outlines core competencies for both entry-level and graduate-level health educators. Each of the competencies requires health educators to be able to collect, analyze, and use health-related data. To perform these tasks, health educators use several data collection techniques involving qualitative and quantitative methods.

Quantitative data collection methods yield data in raw numbers or statistics, and the results have the potential to be generalized to a larger population. In contrast, qualitative data collection methods result in data that are typically text-based or narrative. These types of data are often not designed for statistical generalizations, but to provide in-depth or contextual meaning and understanding to observed phenomena.

One common qualitative data collection technique is the focus group. Appropriate uses, advantages, and limitations of the focus group have been discussed previously

(Krueger & Casey, 2000; Morgan, 1998a; Patton, 2002). In general, the focus group is a research method, it has a specific aim, and it engages participants in discussion. As with other types of qualitative research methods, the focus group can provide meaning, insight, and understanding to facts or events.

Historically, the focus group began in the 1930s with social scientists who questioned traditional interview methods and were interested in discovering alternative approaches (Krueger & Casey, 2000). In the 1950s, within the for-profit sector, marketers began using the focus group to determine how to make their products more attractive to customers (Krueger & Casey, 2000). Gradually, use of the focus group spread to other disciplines, and in the 1980s academia “rediscovered” the focus group (Krueger & Casey, 2000, p.7). In health education research and practice, health educators use the focus group for various purposes. For example, focus groups can be used as part of a needs assessment to collect consumer-related data about percep-

tions, attitudes, beliefs, or experiences. Focus groups can also be used during formative research to develop a communication strategy; explore reactions to messages, materials, and intervention strategies; and to develop appropriate outcome evaluations (National Cancer Institute, 2002).

With the proliferation of social marketing and health communication during the last 30 years, qualitative methods (e.g., focus groups, in-depth interviews, intercept surveys, theater-testing, etc.) have become increasingly popular in health education to assess consumer preferences as the basis for program development. However, with the rapid rise of any methodology, a commensurate risk of misuse exists. As Beckwith

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(1997) suggested, focus groups, as currently conducted, too often say more about group dynamics than market dynamics and tend to address issues of the past rather than solving problems of the future. Although focus groups have demonstrated clear value to the work of health education, they can be poorly conceived, inadequate in number, inappropriately generalized, and underrepresent the larger population. When this happens, data from focus groups and resulting program decisions jeopardize the integrity of subsequent interventions.

Although a focus group, when utilized appropriately, can produce useful information, too often in health education practice it is misunderstood and thus misused. The purpose of this article is to describe four general misconceptions about the focus group. The misconceptions were selected based on two factors. First, consideration was given to the assessment of universal misunderstandings about what focus groups are or what focus groups are not, and about myths of the focus group. The second consideration was the frequency that these misconceptions are perpetuated in practice as evidenced by reports in journal articles and field experience of practicing health educators. A clearer understanding of these concepts will assist health educators to effectively use the focus group to advance health education research and practice.

MISCONCEPTIONS ABOUT THE FOCUS GROUP

Misconception 1—the focus group is quick, easy, and inexpensive (Morgan, 1998a). When designed and conducted appropriately, the focus group can actually be very time- and resource-intensive (Krueger, 1995). Although focus group projects that are published in peer-reviewed literature are generally well-designed, projects implemented in community health practice by health educators vary significantly in methodological rigor.

Based on the authors' 32 years of collective experience in public health education, health educators too often view the focus

group as a quick solution to a complex research question or programmatic concern. One such example involved program staff at a state health department who conducted a few focus groups to evaluate the impact of a diabetes-related media campaign within a specific racial/ethnic group. In this example the focus groups were used inappropriately to measure program outcomes. The strategy did not produce an adequate sample size and did not represent the study population appropriately. But because health educators are often faced with unique funding, programmatic, or policy-driven expectations and deadlines, focus groups were viewed in this context as an inexpensive strategy to receive immediate consumer feedback and report on program effectiveness. In this case survey research would have provided better evaluation measurements.

General steps in the focus group process include planning, recruiting, moderating, analyzing, and reporting. Within each of these steps are a number of subtasks (Morgan, 1998b) (Table 1).

In particular, analysis of focus group data is "time consuming, tedious, and difficult" (Krueger, 1995, p. 527). The chosen method for analysis may depend on the purpose and limitations of various techniques and the needs and expectations of the research audience (Carey, 1995). Data analysis methods may include phenomenology, grounded theory, content analysis or narrative analysis (Carey, 1995).

Most focus group research published in peer-reviewed literature outlines a sequential process. This process often includes a variation of the following steps outlined by Marshall and Rossman (1999): organize data; generate categories, themes, and patterns; code data; test emergent understandings; search for alternative explanations; and write the research report. Following this approach requires a significant amount of time.

However, in practice the data analysis process is more practical and less theoretical. Health educators who conduct and/or observe the focus group, or the contractor they hire to moderate the focus group, may

choose to provide an executive summary of the findings of the results based on their observations or a brief reading of transcripts. Henderson (1995) states that people often want quick results, only want key findings, and particularly those findings that support decision-making. Frequently, the client does not read a full-report, often reading only the executive summary, and at times decisions are made without the report at all. Consequently, a theoretical approach to analysis is less likely to occur, as the contractor looks for evidence relating to and supporting the study purposes. Although timely results are desirable, the potential drawback to an unsystematic analysis is that the results may lack validity and reliability. The data may be biased, reflecting the contractor's interpretation of the data.

If the focus group process outlined in Table 1 is followed step by step, focus groups can require a substantial investment of time and finances. Morgan (1998b) provides the following estimates for the time required for a project involving four focus groups: planning, 2 weeks; recruiting participants, 2 weeks; moderating focus groups, 1 week; and analysis and reporting, 2.5 weeks. Portions of the financial cost can be reduced or eliminated if some of the tasks are completed in-house. If a health educator contracts with an outside agency, for two focus groups he or she should plan to invest in the range of \$7,800–\$13,815 (National Cancer Institute, 2002).

Misconception 2—the focus group can be used as a source of quantitative data. Focus groups are not suitable for collecting quantitative data for two reasons. First, the sampling procedures are typically purposive, meaning that participants are selected based on the purpose of the study. The sample size is generally not adequate for statistical analysis, and therefore not appropriate for numerical results (Morgan, 1998a). Second, one advantage of the focus group is the interaction that enhances discussion by stimulating or triggering participant ideas. A focus group format also allows the researcher to probe participants for additional information or to clarify a participant's

**Table 1. Steps and Subtasks in the Focus Group Process**

Step	Subtasks
Planning	Define the purpose and outcomes of the project Identify the role of the sponsor in the project Identify personnel and staffing resources Develop the timeline Determine who will be the participants Write the questions in the interview guide Develop a recruitment plan Set the locations, dates, and time for the sessions Design the analysis plan Specify the elements of the final report
Recruiting	Define the target population Define segments within the target population Identify the appropriate composition for each group Develop eligibility and exclusion criteria for individual participants Develop recruitment screening and invitation scripts Make the initial recruitment contacts with potential participants Determine the follow-up procedures that will ensure attendance
Moderating	Define the role of the moderator Decide whether multiple moderators will be needed Train moderators or select skilled moderators Develop the questions for the interview guide Identify the external props or materials that will be used in the session Clarify the sponsor's involvement at the focus group sessions Clarify the arrangements for the location, recording equipment, and so forth Determine what kinds of field notes the moderator will generate
Analysis	Estimate the amount of time devoted to analysis Organize the field notes, tapes, transcripts, and other data Study the data to determine the key conclusions Organize the products of the analysis to match the format of the final report Meet with the sponsor to report the results of the project

Source: Morgan, 1998b

response. Therefore, the types of questions asked in a focus group should be open-ended, lead to further discussion among participants, and explore the topic in-depth.

For example, researchers conducted 11 focus groups among Latinos diagnosed with diabetes to identify issues and themes that would guide the development of educational programs and materials (Anderson, Goddard, Garcia, Guzman, & Vazquez,

1998). Questions asked during the focus group included: "I would like you to tell us about how diabetes affects the following areas of your life; What kinds of changes have you made or tried to make in the way you eat to take care of your diabetes?; Are there special foods or folk medicines or other things that you find helpful in taking care of your diabetes?; If you could go back to the day you got diabetes, would you do

anything different about the way you have taken care of it?; What did you receive in the way of medical care or patient education that was most helpful to you?"

In an attempt to understand Arab American adolescent smoking behavior, researchers conducted four focus groups ($n=28$) with adolescents between the ages of 14 and 18 (Kulwicki & Rice, 2003). Questions in the focus group included: "I understand that all of you smoke cigarettes—tell me what smoking cigarettes means to you; Tell me about your personal experiences with smoking cigarettes; Tell me why you started smoking; Why do you continue smoking?; Tell me what the barriers are for teens to quit smoking; What are your recommendations for smoking prevention and cessation programs for Arab American teens?"

The focus group should not be used to answer questions that could be more easily and appropriately assessed on a quantitative survey questionnaire. For example, O'Dea (2003) was interested in determining the type of nutritional supplements, including sport or energy drinks, that adolescents consumed and the reasons why they consumed these products. Sixteen 30-minute focus groups were conducted with 78 adolescents. The focus group questions asked students to raise their hands if they had consumed a particular supplement. Responses were then counted. Further questions included inquiry about the supplement form (tablet, powder, etc.), the name of the supplement, and where the student obtained the supplement. A survey questionnaire would be more suitable to assess awareness, knowledge, or facts. In this particular study a more appropriate use of the focus groups would have been to inquire further about the reasons why they consume supplements. These questions might have included, but not have been limited to, perceived benefits and perceived consequences of supplement use and situations in which they would or would not use supplements.

A poison control program was interested in gaining information to assist in the



development of (education) strategies, including public awareness campaigns for low-income women with young children (Schwartz, Howland, Mercurio-Zappala, & Hoffman, 2003). During two focus groups ($n=20$) questions were asked about knowledge of services, perceived barriers to calling the poison center, individual behaviors, and awareness of seeing advertisements on the public transportation system. In this scenario it was fitting to use the focus group to assess perceived barriers to calling the poison center and to determine where to place public awareness messages. However, it was less fitting for researchers to ask if the respondents had ever heard of a program, or if they recalled seeing the advertisements, and then to report the percentages or numbers of the respondents answering in a particular manner. If the researchers wanted to assess public awareness of these issues, a more useful approach would have been to conduct a survey with an adequate sample size that could have resulted in significant quantitative data.

Although a focus group is not suitable for collecting quantitative data, a focus group can be used to collect data that will provide the background information necessary to generate questions or response options for a survey questionnaire. This might be especially appropriate when a relatively new research topic is being addressed, or if the potential response options are vague or unknown. For example, Miller and Iris (2002) conducted a study that included six focus groups among older adults at a wellness center. One objective of the study was to identify concepts to guide the development of outcome variables for a program evaluation. Based on the study results, the authors were able to identify how older adults viewed "being healthy." This information will be used to develop self-report instruments about health knowledge, attitudes, and beliefs.

In the development of a cardiovascular-related health survey for a specific racial/ethnic population, researchers used six focus groups to develop both questions and response options for a survey. Researchers

were concerned that the final survey would be an accurate representation and reflection of the selected population (Carter-Edwards, Bynoe, & Svetkey, 1998).

Misconception 3—only one or two focus groups are necessary. Methods for sample size calculations vary between quantitative and qualitative methods. Quantitative research methods require that a sample size be calculated by taking into account factors such as statistical tests, power, confidence intervals, and effect size. In contrast, sample size in qualitative research depends on the purpose of the research, what would be useful and credible, and the amount of time and resources that are available (Patton, 2002). In general, an adequate sample is determined at the point of saturation or when no new information is forthcoming (Morse, 1994). This may require numerous focus groups among a large population and relatively few in a defined population such as a worksite. At a minimum, three to four focus groups should be conducted for each segment of the population being researched (Krueger & Casey, 2000; Morgan, 1998b). This is because focus group data are analyzed across groups as researchers look for common themes or patterns across the groups. Without an adequate number of groups, data analysis is compromised.

For example, in a study aimed at understanding men's perceptions about cancer-related education efforts, researchers conducted nine focus groups with 82 men (Fleming, Spiers, McElwee, & O'Gorman, 2001). A study that assessed factors that influence elementary school teachers' teaching of health included nine focus groups with 51 teachers (Thackeray, Neiger, Bartle, Hill, & Barnes, 2002). In contrast, researchers interested in identifying factors that they should consider when planning a diabetes education program to meet the needs of the African American community held two focus groups with a total of 16 people (Blanchard, Rose, Taylor, McEntee, & Latchaw, 1999). If the researchers had conducted more than two focus groups, the data would have more adequately reflected the breadth and depth of factors to consider,

thus enhancing the quality of the study.

In an effort to understand benefits and barriers from more than 100 organizations in the Chicago area related to research collaboration between universities and health and social service agencies, two focus groups involving a total of 15 participants were conducted (Sullivan, Balch, Cramer, Willis & Chavez, 2000). Focus group methodology appeared to be appropriate, and participants were planners, project directors, and in some instances executive directors, who could likely represent their organizations. However, conducting two focus groups was probably inadequate to capture and represent the insights and perceptions of so many organizations and their employees. This becomes an even more significant problem when one or two focus groups are generalized to populations in the thousands.

In addition to ensuring an adequate number of focus groups, instead of relying solely on data from a focus group to answer a research question or programmatic concern, health educators should use multiple data collection methods and thus varied sources of data to find solutions. This is referred to as triangulation (Denzin & Lincoln, 1994). For example, a community needs and asset assessment conducted as part of an adolescent pregnancy prevention project included community neighborhood observations; 100 key informant interviews; 19 focus groups with 159 youths; and data mapping of crime statistics, birth records, economic data, voting records, and community resources such as churches (Kegler, Rodine, McLeroy, & Oman, 1998).

Another study related to breast cancer screening effectively combined the use of focus groups with in-depth interviews as well as quantitative methodology (Bryant et al., 1996). A total of 19 focus groups, 58 in-depth interviews, and 407 surveys resulted in a rich data set that explained mammography use among underserved women in Kentucky and helped establish a corresponding social marketing plan. In this case focus group data provided context and helped explain the quantitative data. Given



the range of questions researchers were attempting to address, focus group data alone would likely have been inadequate.

Misconception 4— the focus group opinion accurately reflects or represents individual opinion. Collective responses of individuals gathered across well-constructed focus groups can yield a set of common themes and thus provide insight into the perceptions or attitudes of a population. Yet the interaction inherent in focus groups that triggers thoughts and ideas and results in the desired depth and breadth of discussion may begin to change individual perceptions and attitudes. This may be considered a limitation of the focus group methodology. For example, during the focus group participants may either censor their opinions—meaning that they withhold information due to a lack of trust of the moderator, group members, or the future use of the data—or they conform their comments based on their understanding of expectations of the group (Carey, 1995).

There is also a potential for social loafing in the focus group (Asbury, 1995). This means that some participants provide relatively few comments, and the researcher is unsure whether this is because they agree with what is being discussed and feel that they have nothing to add, or because they disagree but do not want to vocalize their opinions. A closely related concept, groupthink, occurs when group members desire to maintain a sense of unity and therefore ignore evidence or opinions that are divergent from the group view (Wilson, 2002).

The degree to which legitimate changes in an individual's opinion can be distinguished from censoring, groupthink, or conformity is likely impossible to determine. However, a skilled focus group moderator can identify these potential problems related to group dynamics at the start and make course corrections as needed during the group discussion. Furthermore, Carey and Smith (1994) suggest that during the data analysis process researchers should review participant comments at both the individual level and at the group level. This approach may provide insight on

how participant views changed over the course of the focus group or how the individual comments relate to those of other group members.

IMPLICATIONS FOR PRACTICE

Health educators frequently use focus groups to collect data. But when using focus groups for data collection, health educators do not always use a systematic approach (i.e., as outlined in Table 1). If health educators are going to continue to utilize the focus group as a data collection technique, they must realize that the appropriate use of focus groups is a time- and resource-intensive process. Furthermore, there must be an increased understanding of how and when to use focus groups.

Based on the reported misconceptions, the following suggestions are provided to assist health educators in using focus groups appropriately. First, the focus group interview guide (the outline of questions the moderator will ask the participants) plays a key role in ensuring that appropriate data are collected. Therefore, health educators must develop appropriate interview questions. Too often, the wrong questions are asked and the appropriate questions go unanswered. Performing a literature review in the topic of interest should be the first step in developing the interview guide. Next, a list of potential questions are generated. Health educators may collaborate with the target population to create questions. When developing the questions, health educators should consider the answers to the following: (1) Will this question generate group discussion? (2) Is this a question that can be answered effectively and efficiently on a survey questionnaire? If the response to question 1 is "yes," and question 2, "no," then it is likely an appropriate type of question. Health educators should also establish face and content validity for the questions and then pilot-test questions with respondents who are similar to the focus group participants.

Second, when collecting data, health educators should use multiple methods. Multiple methods could include focus

groups, in-depth interviews, surveys, observations, and review of existing data. Data from multiple sources enhances the validity and reliability of the information. Furthermore, health educators should be cautious about attempting to generalize qualitative-based information from focus groups to a larger population. Data resulting from qualitative data collection methods are not meant to be generalized to the entire population. The sample size or sampling method does not yield adequate data to make statistical conclusions. For this reason quantitative methods and inferential statistics that are guided or informed by qualitative methods are more appropriate in generalizing to a larger population.

Additionally, making programmatic or resource allocation determinations based on the feedback of a few individuals is unwise. These decisions should be made based on a larger data set, preferably one that combines qualitative data with quantitative data that are statistically representative of the population. This enables the practitioner to feel more confident in decision-making, especially as it pertains to critical services provided to at-risk populations, often with inadequate budgets.

Third, leading a focus group is not as easy as leading a group discussion. The selected moderator should be well trained and experienced in focus group facilitation. The focus group moderator should be able to probe for additional information, keep the discussion on track, draw out quiet participants, control dominating respondents, and effectively manage group dynamics. It is also imperative that the moderator remain neutral and unbiased. A moderator who demonstrates these capabilities can help reduce the bias that may occur from groupthink, social loafing, or censoring, as mentioned previously.

Fourth, health educators must carefully analyze focus group data. Technology and computer applications have greatly enhanced the ability of health educators to sort and compile qualitative data. Two such software programs are *Non-numerical Unstructured Data Indexing Searching and*



Theorizing N6 available from QSR International and *ATLAS-ti* by Scientific Software Development. However, these advances have not eliminated the need for the role of the researcher, because the quality of the output remains dependent on the quality of the analysis. Individuals must read transcripts and develop a coding scheme prior to using the software to organize data and produce a summary of the findings.

To prepare future health educators, colleges and universities that offer degrees in health education should consider including in their curricula coursework that contains both qualitative and quantitative research methods. In addition, health education practitioners are encouraged to enroll in similar courses as part of their professional development activities.

CONCLUSION

A focus group is more than gathering a few individuals who are willing to share their opinions about a few selected questions. It is a systematic research method with guidelines and protocols. With limited time and resources health educators must ensure that the data collection method they select is the most appropriate for the research question and that the results will yield useful data. Continuing to conduct focus groups under faulty assumptions and beliefs will likely result in health education policies and programs that are less representative of the target audience and less able to deliver the intended results.

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