

Running head: USE OF FOCUS GROUPS

Use of Focus Groups in the Development of a Piercing Assessment Questionnaire

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### Abstract

*Background:* As part of a larger research study, two graduate students used focus groups to collect data to assist in the development of a tool (Patient Assessment Questionnaire – PAQ) to identify the sociodemographic characteristics associated with the presence of body piercings in elective surgery patients.

*Methods:* Two focus groups were convened. The first group consisted of perioperative nurse experts who were asked to validate the content in the PAQ. The second group consisted of a convenience sample, similar to the target population for the larger research study. The second group was asked to pilot-test a prototype of the PAQ and provide feedback regarding their experiences with completing the PAQ.

*Finding:* Use of focus groups proved to be an appropriate and efficient method for testing and refining the PAQ.

### Abstract

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*Methods:* Two focus groups were convened. The first group consisted of perioperative nurse experts who were asked to validate the content in the PAQ. The second group consisted of a convenience sample, similar to the target population for the larger research study. The second group was asked to pilot-test a prototype of the PAQ and provide feedback regarding their experiences with completing the PAQ.

*Finding:* Use of focus groups proved to be an appropriate and efficient method for testing and refining the PAQ.

### Use of Focus Groups in the Development of a Piercing Assessment Questionnaire

National healthcare associations and risk management experts have identified various potential patient safety risks associated with the presence of body piercing in the surgical setting (Plummer, 2001; Fogg, 2001). One of the top issues in the surgical suite is surgical site infections. New body piercings create wounds. As with any wound, whenever the skin is broken there is a risk for infection (Plummer, 2001). Healing time for a new body piercing varies depending upon the specific site of the piercing. The healing time can range from 1-2 months for a tongue or ear lobe to as long as 2 months to 2 years for navel or ear cartilage piercings; and the popular nasal septum piercing can also take from 6 weeks to 2 months for complete healing (Schnare, 2002).

Another patient safety surgical risk related to body piercing is the potential for an alternate site burn (ASB) with the use of the electrosurgical unit (ESU). "An ASB may occur as the electrosurgical current concentrates at an unintended point along the circuit pathway" (Fickling & Loeffler, 2000). Any metal object, such as body jewelry can become a current concentration point. Though newer models of ESUs have special generators developed to eliminate the occurrence of ASBs, ESU manufacturers still advocate for the removal of all jewelry (Association of peri-Operative Registered Nurses [AORN], 2002).

In sum, potential patient safety risks associated with unidentified body piercings include infection at the surgical site due to an unhealed or poorly healed piercing wound, tissue trauma resulting from the pulling of jewelry at the pierced site by surgical instruments or drapes, and burns from electrical surgical units (Plummer, 2001). Even though the significance of these potential safety risks has been documented in the literature, validated evidence regarding the frequency of body piercings and the sociodemographic characteristics of patients with body

piercings has not. The lack of documented evidence could be due in part to the need for development of instruments to note the frequency of body piercings and identify the sociodemographic characteristics of elective surgery patients with body piercings.

As graduate nursing students at the Uniformed Services University of Health Sciences (USUHS), the authors were invited to join a research team developing a tool to determine the frequency of body piercings in elective surgery patients and identify the sociodemographic characteristics of those patients with body piercings. In their assigned roles as research assistants, the authors conducted two focus groups to validate and pilot-test the newly developed PAQ to be used in the larger study assessing the frequency of body piercings in elective surgery patients. Initially, the research team from the larger study created a prototype tool. Next, the research assistants asked perioperative nurse experts to validate the tool for content; and lastly a convenience sample of people similar to the target population for the larger study was asked to test the PAQ prototype and provide feedback regarding their experiences with completing the tool.

The purpose of this paper is to report on the experience of conducting two focus groups to assist in developing a questionnaire to profile the sociodemographic characteristics associated with body piercings in elective surgery patients. Outlined here will be the advantages and disadvantages of focus groups found in the literature and experienced while the sessions were conducted. Also to be discussed will be the specific methods used to conduct these focus groups, and an overview of how the outputs from the two focus groups conducted impacted refinement of the PAQ.

### Review of Literature

Focus groups are an effective strategy for both soliciting feedback from experts and pilot testing a newly developed instrument (Edmunds, 1999, McLafferty, 2004). Focus groups are economical (Beyea, 2000, Greenbaum, 2000), and provide an opportunity for group discussion, which can create greater variety in viewpoints, opinions, and group outputs (Greenbaum 2000). Bader and Rossi (2002) outline a model for conducting focus groups in a publication titled "Focus Groups: A Step-by-Step Guide". As novice nurse researchers and first time focus group conductors, the authors found this model to be clear, easily understood, and simple to follow. The Bader and Rossi (2002) model will be used as the framework for this review of literature on procedures, advantages, and disadvantages associated with focus groups.

According to Bader and Rossi (2002), the most important step in the preparation and planning of a focus group is defining the purpose of the group, i.e., what is to be accomplished. Bader and Rossi (2002) explain that a well-defined purpose statement suggests the value of the project, and encourage support and participation by others. Mansell et al (2004) conducted a study to determine the advantages and disadvantages in the use of focus groups as a method of data collection. Once the aim of the focus group was decided, the authors determined that four different focus groups (each comprised of people with a specific job function) were needed to obtain the different perspectives on palliative care services. In Willgerodt's (2003) project, the research aim was to determine the validity of a measuring tool when used to assess a specific minority group. Knowing which minority group to look at helped determine the need to have translators, the make up of the focus groups depending on age and sex of the participants, and the different types of refreshments to serve to the group. McLafferty (2004) conducted a study to determine attitudes of different skilled nurses and nurse lecturers towards working with older



patients in a hospital setting. McLafferty's (2004) study provides another example of how identifying the purpose of a study can help to determine the required focus group composition. Because this study focused on the attitudes of various types of skilled nurses, McLafferty's (2004) focus groups were organized into several homogeneous nursing skill level focus groups, necessitating multiple focus groups.

In addition to defining the purpose statement for the project, the various roles of the project participants (i.e., facilitator, recorder, etc.) should also be well defined (Bader & Rossi, 2002). The main role of the group facilitator is the administration of the actual focus group session. The facilitator may be someone from within the project group or an outsider with experience in conducting focus groups. In either case, the facilitator is charged with keeping the group "on target" (making sure that all target topics are discussed), without stifling the free expression of ideas, and should have a well-developed, written agenda from which to conduct the session. Most articles containing the use of focus groups as a methodology in the development of a new measuring tool or instrument discuss the importance of the facilitator in conducting and guiding the group discussion. McLafferty (2004) discusses the key role of the facilitator as directing and stimulating the conversation of the focus group as well as creating a non-threatening and supportive atmosphere where everyone in the group feels welcome to share viewpoints. In the focus group conducted in the Mansell et al. (2004) study, the role of the facilitator as a communicator and a guide was identified as crucial, and a skill that cannot be overemphasized when trying to obtain all desired information through use of a focus group. Willgerodt (2003), found that not only did the moderator (facilitator) have to be skillful as a communicator, but also culturally sensitive toward the group participants; and Beyea & Nicoll

(2000), indicated that not only does the moderator (facilitator) need to be an excellent communicator but also proficient in the focus group topic.

Bader & Rossi (2002) state that another vital role during the group session is that of the recorder. During the preparation for the group, the project team will decide which recording method will be used to capture the transcript of the proceedings. The session transcripts can be collected in a variety of ways including tape-recording, videotaping, or pen-and-paper note-taking. Tape- or video-recording provide the truest account of the proceedings. However, some participants may feel uneasy about these exact recording methods depending upon how personal or sensitive the topic being discussed (Polgar & Thomas, 2000). When those types of issues come up, the recorder must be prepared to take accurate pen-and-paper notes. In all focus groups, recording of data by note-taking, audio-recording, video-recording or a combination of the three needs to be determined prior to the focus group taking place. In Powell et al (1996) the method used was both note-taking and audio-recording. In McLafferty (2003), both audio and video recording was used to collect the data, whereas in the Mansell's et al (2004) study, an assistant moderator was present for note taking allowing the primary facilitator to concentrate on moderating the group without the distraction of note taking.

According to Bader and Rossi (2002), the participant selection process is flexible and adaptable to meet the needs of the project team. Nevertheless, these authors suggest adhering to a few general rules to help increase group productivity. The rules include: selecting only those participants who have a personal stake in the issue or situation being discussed; avoiding the use of volunteers; using a representative sample – the group need not be random and; when using participants from within a single organization, ensuring that all participants in a single session are from a similar level, ranking, or hierarchy within that organization.

Opinions vary on the proper number of participants for a single focus group session. Bader and Rossi (2002) suggest that the optimal size for a focus group is 10-12 participants, and state that a small group size encourages participation from each member and allows time for a more detailed discussion. McLafferty (2004) calls the discussion regarding the number of participants in a single focus group session a "contentious issue". In that study there were six focus groups used with numbers of participants ranging from 4 members to 9 members. This is certainly in line with McLafferty's (2004) review of various focus group studies where the conclusion is that the numbers of participants may vary from 4 to 20.

The location where the focus group is held should be convenient to the participants and have a pleasant and comfortable environment (Bader & Rossi, 2002). There should be an adequate number of comfortable chairs surrounding a round table. The round table will facilitate keeping all minds on target. Prior to the initiation of the focus group session, all necessary equipment should be checked and pre-tested. Necessary equipment can include such items as a computer, monitor, projector, screen, video-taping equipment or tape-recording equipment, and plenty of paper, sharpened pencils, pens, or markers. McLafferty (2004) was able to have both a neutral and familiar setting for all but one of her six groups conducted in a study to establish the comfortable and trusting environment needed to attain desired outcomes from focus groups. McLafferty (2004) also provided refreshments in the form of tea and coffee, as well as cakes and biscuits, to aid in helping to relax the atmosphere. Powell et al (1996) also chose locations convenient to all of their different group session participants. Two of the four groups were conducted in well-known facilities within the towns where the participants worked. The other two groups were pre-formed (i.e., the group already had a recurring meeting time), and the focus

group participants met at their recurring scheduled time and regularly scheduled venues for the focus group session.

Numerous authors have presented helpful hints as well as evidenced based accounts on how to conduct a focus group. The thorough review of literature presented above confirms that focus groups are a valid and appropriate tool for use in instrument development.

### Method

This section of the paper provides an overview of the procedural steps that were used to conduct two different focus groups to validate and test the newly developed PAQ for use in a study assessing the frequency of body piercing in elective surgery patients. The major components of the Bader and Rossi (2002) model, discussed above, are used to present the procedures that were used when conducting the two focus groups.

### Participants

Focus group one was comprised of experts in the field of perioperative nursing currently working at the hospital in which the larger study was approved to be conducted. Focus group two was comprised of a convenience sample of people from the university community, but not associated with the larger study. Informed consent was obtained from participants in both focus groups.

#### *Focus Group One*

Focus Group One was comprised of a total of five masters prepared perioperative nurses (each with no less than 14 years of perioperative nursing experiences).

*Setting.* Focus Group One was conducted in a conference room located in the hospital setting for the larger study, near the practice area for the nurse experts. The conference room contained two rectangular tables, which were arranged in a "T" shape. The participants sat in

chairs around the longer table and the research assistants for the larger study sat in chairs at the shorter table at the top of the "T". The door to the room remained closed during the session to minimize outside distractions. The room location, table arrangements, and privacy assurance were consistent with recommendation made by Bader and Rossi (2002), and discussed in the literature review section of this paper.

*Materials.* Prior to the actual meeting time of the group session, all necessary materials needed to conduct the group were gathered. Bader and Rossi (2002) suggest assigning the task of procuring all of the materials to one member of the team. In this instance both research assistants worked to obtain and arrange the necessary materials. The materials gathered for this focus group consisted of: sufficient number of PAQs for the participants to complete; sufficient number of sharpened pencils for the participants to use; prepared scripts for the both the recorder and the facilitator; room reserved with adequate tables and chairs for seating; and, ample finger-foods for the group along with cups, napkins, plates, and utensils. Following the recommendation of Beyea & Nicoll (2000), refreshments were used to put the group at ease and create a relaxing atmosphere.

*Roles.* One research assistant acted as the group facilitator and one as the group recorder. The facilitator read questions relating to validity of the content in the PAQ, one at a time from a prepared script; enhanced group interaction by adopting a non-intimidating attitude and creating a non-threatening environment; encouraged feedback from each group participant, including discussion of any new ideas or alternatives to the PAQ as presented; reviewed group feedback with the group to wrap up the session and asked for additional comments from the group; and closed the session thanking all group members for their participation. The recorder kept track of facilitator activity by following questions and comments outlined on the prepared script and

made notes of the comments, feedback, and/or suggestions from the group of experts. The facilitator and recorder both acted as summarizers; both individually and jointly reviewed the notes of the feedback received at the focus group session, analyzed the written feedback for completeness, and compiled a summary report of data gathered during the focus group.

*Procedures.* Finger food snacks were made available while the members of the focus group were arriving. When all participants were present, the door to the room was closed and the focus group commenced. The focus group began with an introduction of the facilitator and the recorder and an explanation of how focus group one related to the goals of the larger study. After the introductions, the recorder handed out a PAQ to each participant. The facilitator provided instructions on completion of the PAQ and each participant was provided with enough time to read and complete the PAQ. The participants were asked to complete the PAQ from a surgical patient's perspective.

When all participants had completed the PAQ, the facilitator initiated a group discussion using the prepared script of questions relating to the content of the PAQ. The participants provided feedback and discussion after each question was read. The recorder made paper and pen notes of all feedback, discussion, and comments while the facilitator continued to moderate the group. Little prompting was required by the facilitator to elicit feedback from the group of experts. The liveliness of the discussion was thought to be a function of how well-known the group participants were to each other and their previously developed camaraderie. (Powell et al, 1996, believed that the use of groups of friends rather than strangers is more conducive to a frank discussion). After providing feedback and discussion of all scripted questions, the participants were asked to provide unstructured feedback, and there was none. The facilitator and recorder

thanked the group of participants. The group was dismissed. The focus group lasted for approximately one hour.

### *Focus Group Two*

Focus Group Two included a convenience sample of 13 university employees (both civilian and military) not otherwise associated the study.

*Setting.* The group met at lunchtime in a small conference room located near the dining facility on the university campus. The room had three rectangular tables, which were arranged in a "U" shape. The participants sat in chairs behind the tables facing into the "U" so that all participants were in full view of one another as well as the facilitator and recorder. The two doors to the conference room remained closed during the session to prevent outside distractions. The room location, table arrangements, and privacy assurance were consistent with recommendation made by Bader and Rossi (2002), and discussed in the literature review section of this paper.

*Materials.* Prior to the commencement of the focus group session, all necessary materials needed to conduct the group were gathered. The materials for Focus Group Two were the same as the materials gathered for Focus Group One.

*Roles.* The roles assumed for this focus group session were the same roles identified for Focus Group One. However, for this focus group, the research assistant who acted as the recorder in focus group one assumed the responsibility of the facilitator and the research assistant who acted as the facilitator in Focus Group One assumed the responsibility of the recorder. As in Focus Group One, both research assistants assumed the role of the summarizer.

*Procedures.* Procedurally, Focus Group Two was conducted in the same manner as Focus Group One. The session was held at lunchtime and finger-foods were provided as the

participants arrived. One research assistant acted as facilitator and the other acted as recorder. The participants proofread and completed the PAQ from the surgical patient's perspective. The recorder made notation of the length of time required to complete the PAQ by each participant. After completion of the PAQ, the facilitator read questions from a prepared script and participants were asked to comment on the relevance of content, neutrality of tone, cultural sensitivity, and appropriateness of language of the PAQ, as well as the perception that participants were being directed to answer questions either positively or negatively. Because this group of participants was less well known to each other, the facilitator was required to assume a larger moderator role to encourage feedback and discussion from the group. After providing feedback and discussion of all scripted questions, the participants were asked to provide unstructured feedback, and there was none. The facilitator and recorder thanked the group of participants. The group was dismissed. The focus group lasted for approximately one hour.

### Process Summary

Upon completion of each of the focus groups, and to ensure completeness and accuracy of the recording of activities, the two research assistants individually and jointly reviewed the recorded notes of feedback and discussion received from each focus group session. A summary report of discussion/feedback from each session was created and presented to the research team for the larger study (this team included the two research assistants, and the principal and co-investigators). During the larger study team meeting, the focus group data were analyzed, interpreted, and discussed. The PAQ was modified and refined following these large team meetings.

After the research assistants received the final PAQ product, the tool was individually vetted to each of the participants in both focus group sessions. Krueger and Casey (2000)



suggest reporting findings to participants and asking for feedback or vetting, “is that what they meant?” “what do they think about the finished product?” (pp.150-151). Adding this step to the PAQ refinement process allowed additional ideas from participants to be considered in preparing the tool for use in the larger study.

### Lessons Learned

The successful use of focus groups for research data gathering is a well-documented phenomenon. Focus groups are a cost-effective method for gathering large amounts of data in a relatively short period of time. Some of the advantages of using focus groups in the development of a research tool include time and resource economy (Beyea & Nicoll, 2000). Additionally, the brainstorming effect of the focus group discussion can create a greater variety of viewpoints and opinions than individual interviews.

In this study, the focus group was utilized to preview and refine the PAQ prior to the actual use of the tool in the larger study. Bader and Rossi’s guide to Focus Groups (2002) provided the framework for development and conduction of the two focus groups described in this paper. The ease of use of focus groups in the development of a tool is evidenced by the outcome of this project. The overall outcome of the project was successful despite the relative inexperience of the two research assistants in conducting focus groups. The PAQ was quickly and easily modified using the information received from both focus groups and the PAQ is currently in use in the larger study at this time.

As with the Bader and Rossi (2002) recommendation, the sessions were conducted in facilities that were convenient in location for the focus group participants. Focus Group One was held in a conference room located near the practice setting of the expert participants at the study hospital. Staging this focus group near the practice setting allowed easy, convenient access for

all participants, which increased the likelihood of attendance by all invited experts. Focus Group Two was conducted in a small conference room located near the dining facility on the university campus where all of the participants were university employees. The convenient location for this focus group, coupled with the lunchtime meeting time (with food provided), resulted in good attendance by most of the invited participants. The conference rooms were familiar to all, but not the specific workplace of any one or more persons. Willgerodt (2003) stated that unfamiliar setting would be stressful for participants. However, in the case of focus group one, the convenience had a disadvantage. Because the site was so convenient to the workplace, at two different times, two of the participants were temporarily called away from the session and back to their jobs. In each case, the participants returned to continue and complete the session.

McLafferty (2004) and Powell et al (1996) found better group dynamics and interactions with groups of participants that were familiar with one another as opposed to strangers. As evidenced in this study by the difference between the two focus groups, all of the participants in focus group one were very well known to one another and seemed to require very little prompting from the facilitator to interact with one another. On the other hand, the participants in Focus Group Two, who did not know each other as well, required more frequent prompting and encouragement from the facilitator in order to interact with each other.

The only recording method used in the focus groups was the pen-and-paper method. While this method has its positive points, other methods have received more accolades in the literature. Polgar & Thomas (2000), give advantage to using both audio and video methods of collection. The value is in the ability to review the interaction as often as desired and in the ability to do validity checks of what was the actual discourse. McLafferty (2004) used both audio- and video- recordings in tandem in the hopes that if one method failed the data would still

survive on the other method. The paper-and- pen-recording method may be required if participants have issues with their images or voices being recorded. Polgar & Thomas (2000) also state that participants may “sanitize” their comments if they fear possible reprisals from having their true feelings audio-taped.

The purpose of this study’s focus groups was to have the participants trial the PAQ as it is intended to be used; i.e., with pen-and-paper. The participants recorded their PAQ answers, then verbally responded to the facilitator’s scripted questions regarding their experience of completing the PAQ and their thoughts about the PAQ content. It was easy to record their responses on a similar document as the questions were asked. Additionally, as body piercing can be considered a sensitive subject, participants may have been reluctant to respond as freely had electronic recording devices been employed. Therefore though other methods of recording are more frequently hailed, because of the reasons stated above, the pen-and-paper method was ideal for this project.

Bader and Rossi (2002) appreciate the professional or “external” facilitator as having a higher level of self-confidence and a good ability to remain focused upon the agenda. Participants may feel comforted by a greater sense of confidentiality, thus providing less of a filter to their comments. Perhaps a more seasoned or professional facilitator would have gleaned more from the participants. However, the research assistants, though inexperienced in focus groups, were very knowledgeable in the perioperative arena. The poise the research assistants exhibited due to their subject matter expertise translated into a confident style as facilitators and recorders. The focus groups were orderly, pleasant, and produced valuable feedback from the participants that was helpful in modifying the final PAQ instrument.

Brink and Wood (1998) suggest that when targeting group participants, consider those with commonalities to the research group to be studied. The participants in the convenience sample used in focus group two may or may not have mirrored commonalities with the projected research study group. The sample group had both military and civilian participants, all over the age of 18 years, and not known to be pregnant. They may or may not have been eligible for Department of Defense healthcare. Despite this single variance, the feedback received from the participants proved to be important in the final draft of the PAQ.

The following helpful tips employed in this study demonstrated their effectiveness and are recommended for use in conducting focus groups for instrument development and testing:

1. Facilitator: Should be ideally experienced as a facilitator and employ a non-intimidating attitude and create a non-threatening environment to enhance maximum group participation;
2. Recorder: Consider having two forms of recording (such as audio and video, or pen-and-paper plus audio), to ensure the truest accounting of the proceedings;
3. Setting: Location should be convenient to the participants as well as pleasant, comfortable, familiar, and neutral;
4. Participants:
  - a. Use at least 5-6, but no more than 12-13 participants to encourage stimulating exchange without the excessive challenge of a larger, more burdensome number;
  - b. Use participants (where appropriate) that are at least somewhat well-known to one another to create a relaxed atmosphere and enhance the willingness of shared ideas and exchanges;

5. Materials: Plan and gather sufficient materials and equipment needed for all processes occurring during the session.

### Conclusion

This experience of focus group utilization for instrument development and testing proved to be positive. Despite the two research assistants' lack of skill and familiarity with the process, the focus group sessions ran smoothly and the information gathered was quite beneficial to the instrument development process. The feedback received from the focus groups has been incorporated into the final version of the PAQ. This PAQ is being successfully used today as an integral part of the larger study. As evidenced by the results reported in this paper, focus groups were found to be a quite useful and appropriate method for gathering data and refining a newly developed research tool.

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