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Modifying the Qualitative Delphi Technique to Develop the Female Soldier Support Model

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Abstract

The U.S. Army chaplaincy did not have a gender specific model for providing emotional and spiritual support to women soldiers. Such a model was needed because women often experience the military differently than men. The Comprehensive Female Soldier Support (CFS²) model was developed using a modified Delphi technique and a feminist theoretical framework. This study altered the Delphi design by using two successive panels of experts. The first panel, consisting of 10 wounded female soldiers, developed a list of pastoral needs experienced by the women. The second panel, composed of 11 female chaplains, provided solutions for those needs. The implication is that specific modifications used in this study are useful when the support needs of a population group are unknown, but once identified, the appropriate experts can solve these needs. Human services practitioners, social workers, and spiritual support providers may find the techniques invaluable.

Keywords

Female Soldier, Chaplain, Delphi, Support, Gender, Multiple Panels, Qualitative Methodology

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Modifying the Qualitative Delphi Technique to Develop the Female Soldier Support Model

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The U.S. Army chaplaincy did not have a gender specific model for providing emotional and spiritual support to women soldiers. Such a model was needed because women often experience the military differently than men. The Comprehensive Female Soldier Support (CFS²) model was developed using a modified Delphi technique and a feminist theoretical framework. This study altered the Delphi design by using two successive panels of experts. The first panel, consisting of 10 wounded female soldiers, developed a list of pastoral needs experienced by the women. The second panel, composed of 11 female chaplains, provided solutions for those needs. The implication is that specific modifications used in this study are useful when the support needs of a population group are unknown, but once identified, the appropriate experts can solve these needs. Human services practitioners, social workers, and spiritual support providers may find the techniques invaluable. Keywords: Female Soldier, Chaplain, Delphi, Support, Gender, Multiple Panels, Qualitative Methodology

In simple terms, the Delphi method is a group communication process designed to enable a group of experts to solve a complex problem (Linstone & Turoff, 2002). The Delphi process consists of a series of rounds in which a panel of experts, through an anonymous forum, provide their opinions on the matter at hand (Charlton, 2004). The purpose of this article is to describe how a modified qualitative Delphi design was used to develop the Comprehensive Female Soldier Support (CFS²) model. Three modifications were made to the traditional Delphi design. Given the uniqueness of the subject and the lack of previous research, the adaption was necessary to create CFS².

Prior to the execution of this study, the U.S. Army did not have a gender-specific model of chaplain support. Chaplains are available to provide emotional and spiritual support to soldiers who request to see them (Howard & Cox, 2008). Unit pastors offer this support through religious rites, sacraments, and pastoral counseling (Besterman-Dahan et al., 2012). Chaplains may also refer soldiers to military mental health providers and other supporting agencies (Howard & Cox, 2008).

Women represent approximately 14% of the U.S. Army (2013 Demographics Profile of the Military Community, 2014). Only 5% of the Army's chaplaincy is female (The United States Army, 2014). Because of the underrepresentation of women in the chaplaincy, most female soldiers do not have ready access to a female chaplain. The goal of this Delphi study was to build consensus on a plan and model for creating a system by which male chaplains could provide effective support to wounded female soldiers.

Once the study problem has been identified, the next step of a Delphi project is to establish criteria by which experts will be qualified to participate in the study. No standard for judging expertise has been established in the literature (Donohoe & Needham, 2009; Sobaih, Ritchie, & Jones, 2012). Sobaih et al. (2012) provided broad guidance on this subject. To be considered for an expert panel, a person should have knowledge or experience with the subject at hand, the willingness and time to participate, and good communication skills (Sobaih et al.,

2012). Each researcher has the responsibility to determine what constitutes an expert (Donohoe & Needham, 2009; Sobaih et al., 2012).

As with expert selection, no clearly defined standard for panel size or composition exists (Donohoe & Needham, 2009; Sobaih et al., 2012). According to Okoli and Pawlowski (2004), a typical panel is ten to 18 members. Donohoe and Needham (2009) suggested that seven is the minimum number of panel members. Panels with more than 100 members have been employed (Snape et al., 2014; Sobaih et al., 2012). Precedence for multiple panels exists in one Delphi study (Okoli & Pawlowski, 2004).

The methodology and design of this study intersected with a variety of feminist theories, including dialogic feminism, feminist trauma theory, and feminist theology. Dialogic feminism posits that all women, particularly those who have been traditionally excluded from the seats of power, should be included in decisions that affect society (Yeste, Ferrada, & Ruiz, 2011). Feminist theology takes into account the experiences of women within a given political and sociological context when tackling issues of equality and faith within religious realms (Rafferty, 2012). Feminist trauma theory (FTT) assumes that women have the strength to be resilient in the face of adversity (Tseris, 2013). This theoretical framework led to the selection of the modified Delphi technique in which the female soldiers who experienced trauma expressed their stories, used their experiences to make recommendations about emotional and spiritual support, and demonstrated their strength in overcoming their wounds. Female chaplains offered pastoral expertise from a variety of women's perspectives and experiences.

The implication of this article is that the modifications to the Delphi technique as outlined in this paper are useful for problems in which the support needs of a population group are ill-defined or unknown. Once the needs are identified, the solutions can be provided by a specific group of experts. Practitioners in the human services, social work, or spiritual support arena may find the techniques described below particularly useful.

Researcher Positionality

The principal investigator on this project was a chaplain assistant in the U.S. Army. As a chaplain assistant, he provided emotional support to female soldiers who experienced a variety of traumas, including sexual assault. The researcher felt that women were underserved by the Army chaplaincy. Many female soldiers who spoke to the assistant expressed frustration with other chaplains' lack of experience and knowledge in giving pastoral support to women. His experiences fueled a desire to provide male chaplains with a model by which they could effectively provide pastoral support. As a feminist, the investigator felt compelled to tell the stories of women who had been harmed in war and work towards making the military chaplaincy a more effective support institution.

Method

The qualitative Delphi design was selected for this project because the approach allows researchers to explore a problem and provide solutions at the same time (Charlton, 2004). Qualitative methods are capable of producing thick descriptions of participants' subjective viewpoint of a given phenomenon or experience (Christensen, Johnson, & Turner, 2011). From an interpretivist perspective, research questions and data are open to interpretation from both the researcher and the participant (Willis, Jost, & Nilakanta, 2007). In this study, researchers collected raw data through semi-structured interviews, organized data into codes, and then created unifying categories for codes. Within the Delphi process, participants reviewed the data and provided feedback on the analyst's work.

Other designs for this study were rejected. Quantitative methods can determine causal relationships, generate theory, or evaluate correlations (Koro-Ljungberg & Hayes, 2010), but these capabilities did not align with the purpose of this project. Qualitative case study and grounded theory designs were also eliminated. Case studies can explore and explain, but are not used for solving problems (Breslin & Buchanan, 2008). The purpose of grounded theory is to generate theory from collected data (Bryant & Charmaz, 2007). These designs were rejected because the purpose of the study was to develop a model. The Delphi technique is perfectly suited for such a purpose.

In this study, the pastoral needs of wounded female soldiers were unknown. An underlying assumption was that female chaplains could provide the expertise to solve problems identified by the women soldiers. A two-phase process was used to develop CFS².

Panel Criteria

For the study described in this article, two definitions of experts were used to establish two separate panels with separate and distinct roles. The first definition related to female soldiers. To be considered for the study, a person had to be a female in the Army who had been injured while serving overseas. The injury could be due to accident, enemy action, or sexual assault. In this case, personal experience was the defining criterion. Personal experience is an accepted standard for expertise (Sobaih et al., 2012).

The second definition of expert was applied to chaplains. To meet the inclusion criteria, chaplains had to be currently serving in the Army, been deployed overseas at least once, occupy the rank of captain or above, and have served in the Army at least four years. Captain is the normal rank for an active duty chaplain serving at the battalion level. Chaplains are not assigned to units smaller than a battalion. Battalion chaplains in the Army Reserve and National Guard may be first lieutenants (the next rank below captain). Captain was selected as the minimum rank for this study because first lieutenants are junior officers who generally have very little experience in the Army. For this group of participants, the definition aligned more closely with traditional Delphi standards of expertise — closeness to the problem, specialized training, a certain level of authority, and practical experience (Donohoe & Needham, 2009; Sobaih et al., 2012).

According to Donohoe and Needham (2009), the minimum panel size for a Delphi study is 7 to 15. For this study, the first panel consisted of 10 female soldiers (Panel 1). Panel 2 was made up of 11 female chaplains.

Prior to conducting the research, investigators obtained approval from the University of Phoenix Institutional Review Board and the Department of Defense Human Protections Administrator at Womack Army Hospital at Fort Bragg, North Carolina. Investigators maintained the confidentiality and anonymity of participants by using a letter and number code combination to identify panel members. For instance, a wounded woman might be identified as WW609. Numbers were randomly generated using Research Randomizer. Research Randomizer is a free Web-based application for generating random number sets for research (Urbaniak & Plous, 2016). Participants signed informed consent forms before being included in the study.

Round Execution

The Delphi process incorporates a series of rounds in which expert opinions are stated, refined, evaluated, and summarized (Donohoe & Needham, 2009; Sobaih et al., 2012; von der Gracht, 2012). Researchers typically use the first round as a scoping round to gather data and develop an initial questionnaire (Donohoe & Needham, 2009). For each subsequent phase of

this study, a scoping round, comprised of semi-structured interviews was used to gather data for use in subsequent rounds.

Once the scoping round has been completed, the next step is to create a questionnaire or other survey instrument and circulate it to the panel (Donohoe & Needham, 2009). Panel members provide feedback to the questionnaire, which is analyzed by the Delphi facilitator (Donohoe & Needham, 2009). The feedback may be in a qualitative or quantitative form (von der Gracht, 2012). The facilitator analyzes the responses and returns a refined questionnaire to the participants who rank the items and provide additional feedback (von der Gracht, 2012). Refining is a process of converging opinions and measuring consensus (von der Gracht, 2012). This circular process of feedback, analysis, and more feedback continues until the consensus threshold is reached (Donohoe & Needham, 2009; von der Gracht, 2012).

Consensus and Validity

Von der Gracht (2012) listed a variety of consensus types used in previous Delphi studies. Simple methods include predetermining the number of rounds that the project will use, having the facilitator determine that an adequate number of rounds have been completed, and defining a certain level of required agreement (e.g., 51%; von der Gracht, 2012). Other, more mathematical techniques include using mode or mean with standard deviation rankings; average percent of majority of opinions, or coefficient of variation (von der Gracht, 2012). This study used a simple majority method.

Delphi projects conform to validity principles through member checking and participatory research. In member checking, participants are given the opportunity to view, comment on, and validate gathered data (Carlson, 2010). Participatory research is a technique in which study participants are actively involved in the design and conclusions of research (Fletcher & Marchildon, 2014). In this study, participants in each phase viewed and approved data before they were included in the next phase. Participants were actively involved in all rounds and phases, and the final product — CFS² — was a creation of the panels of experts.

This project was broken into two distinct phases. The first phase was designed to develop a list of pastoral needs of wounded military women. The purpose of the second phase was to create a list of actions male chaplains, who predominate in military service numbers, can take to provide for the needs of women wounded in service. The culmination of the project was the development of CFS².

Phase 1

The purpose of the first phase was to develop a list of emotional and spiritual support needs experienced by wounded military women. The first round of Phase 1 consisted of semi-structured interviews with each member of Panel 1. These women were considered experts, not by nature of their resumes, but solely based on their experiences as wounded soldiers.

Interviews were conducted in face-to-face settings or over the phone. First, soldiers were asked to describe themselves from a religious or spiritual standpoint and tell how many times in the past year they had attended religious services. Along with questions about places and dates of deployment, these questions gave researchers demographic and descriptive data. Then, participants were asked, "From the time you were wounded or injured, and during the period of your recovery, what emotional and spiritual support needs did you have? Do you consider yourself to be fully recovered from your wounds/injuries? What ongoing emotional or spiritual support needs do you have?" Finally, members stated if they had a preference for the gender of the chaplain. From the first round of interviews, researchers developed a list of emotional and spiritual support needs.

To develop the list of needs, a coding process was used. Transcribed interviews were first entered into NVivo 10 for Mac, a software package designed to analyze unstructured data (NVivo qualitative data analysis software, 2014). Next, the analyst ran a word count query in NVivo. Using the most frequent words as inputs, the researcher ran text search queries to find sentence fragments. Fragments that expressed or inferred a need were identified. For instance, “help” was the fourth most frequent word in the word count list. Entering “help” in the text search query returned “help processing my emotions” and other sentence fragments. The needs were cataloged and duplicates were eliminated. Once the final list was developed, it was given to the participants for review.

The second round was terminated when stability was reached. Stability, as an alternate to consensus, is another way of establishing agreement in Delphi studies. Stability is reached when opinions from round to round do not change (von der Gracht, 2012). For this study, it was decided that no felt need should be eliminated. Participants were asked to review the generated list of needs. If all of the person’s needs were present in the list, then the stability requirement was met. Once all Phase 1 participants reviewed the list, it was adopted.

Phase 2

This phase began as a series of semi-structured interviews with Panel 2 participants. During interviews, each chaplain was presented with the list of needs developed in Phase 1 and asked how chaplains could provide for each need. Chaplains were also asked what actions a male chaplain could take if a woman soldier expressed a desire to receive counseling from a female chaplain.

Interviews were transcribed into a word processing program. From the notes, the analyst identified chaplain action items and placed them into one of two categories. The first group was a list of actions chaplains could take if the gender of the chaplain was not an issue for the soldier. The second category included measures a chaplain could take if the soldier stated a preference for a female minister.

The analysis generated five categories of items: chaplain characteristics, external actions, valuable training for chaplains, the chaplaincy institution, and gender-specific actions. The researcher created categories by looking at key words and descriptions in the interview text, grouping similar explanations together, and developing unifying categories. Chaplain characteristics included personal traits chaplains should possess. *Self-awareness* and *role awareness* are two examples. Participants stated that chaplains should be aware of their own emotional triggers. Female chaplains alluded to role awareness by saying that ministers cannot do everything and should be willing to bring in other support providers, such as mental health professionals, to help when needed.

External actions referred to activities chaplains should take when interacting with clients. Any measure that involved direct support to a soldier was included in this category. The analyst divided external behaviors into nine categories. Some examples included *build rapport with all soldiers in the unit*, *employ caring counseling techniques*, and *help soldiers connect to a supporting community*.

The categories of valuable training and chaplaincy institution were closely related. Female chaplains talked about the importance of attending skills sustainment training and annual conferences. These training events should be mandated by the office of the chief of chaplains. Participants stated that the chaplain institution should improve the process by which candidates were selected for inclusion in the chaplaincy and make sure that at least one female chaplain is assigned to every military installation.

In terms of gender-specific actions, women ministers commented on two things. First, male chaplains should take responsibility for all soldiers in their units. According to

participants, it is not acceptable for a male chaplain to refer a female soldier to a woman chaplain on the basis of gender alone. Second, clergy should develop formal and informal networks so that a soldier could be readily referred to a chaplain of the appropriate gender and skill set.

Much of the data provided by chaplains were subjective, context-specific, and could be considered common practice. The second round focused on the items that were innovative. Nine novel ideas were considered.

In the second round, chaplains reviewed each idea. The consensus threshold was set at 50%. Eleven female chaplains participated. Each suggestion that received the endorsement of at least six chaplains was included in CFS². Consensus was reached on all innovative ideas. All other suggestions provided by chaplains were included in the model. In total, the final catalog contained 27 items: eight chaplain characteristics, nine external actions, two training items, five suggestions for the chaplaincy institution, and three gender-specific actions.

The technique used in this phase was unique because consensus was not sought on all data points. Only the items considered by the researcher to be innovative were included in the consensus exercise. An idea was considered to be innovative if it was not known to be in practice in the U.S. Army chaplaincy at the time of the study.

Results

The end product of the Delphi process was the gender-specific Comprehensive Female Soldier Support (CFS²) model. The model consisted of two major elements — chaplain institutional responsibilities and individual male chaplain duties. Chaplaincy institutional requirements included increasing the number of female chaplains in the force, ensuring that at least one female was assigned to each military installation, and creating a comprehensive chaplain directory. Chaplains also recommended that the chaplaincy develop a better screening process so that those candidates who had experience in helping people through trauma would be given the highest priority for accessioning. The chaplaincy should also offer annual conferences for all chaplains, annual female only conferences, and give more chaplains the opportunity to attend clinical pastoral education (CPE), a specialized training program for chaplains entering hospital chaplain work. CPE can increase chaplains' self-awareness, which has been positively correlated with pastoral skills and emotional intelligence (Jankowski, Vanderwerker, Murphy, Montonye, & Ross, 2008). Finally, female chaplains stated that the chaplaincy should foster discussions about gender issues in the military; since conversational interactions could help male chaplains understand the pressures and challenges military women face.

CFS² included specific tasks for male chaplains. The most important requirement was that male chaplains take responsibility for all soldiers in their units. Some participants described how male chaplains would refer all female soldiers to women chaplains without first determining if the soldier needed or wanted to get support from a woman. Male chaplains should first offer their full support to every soldier and then if a service member requested a female chaplain or needed a different support provider, the male minister should make a referral. The other individual responsibilities stipulated in the model included maximizing opportunities to attend training, participating in annual conferences, and engaging in gender discussions. Besides increasing knowledge and skills, fully participating in the aforementioned could help chaplains increase their own personal networks for referrals and career progression.

Discussion

Several modifications to the traditional Delphi technique were made during the conduct of this study. The first change was using multiple Delphi panels. Multi-panel studies have been used previously. Ludlow (2002) described a regional planning Delphi project in which three different panels were used at the same time. Okoli and Pawlowski (2004) stated that up to four panels could be assembled for one study.

The second modification was using successive panels. The first panel, comprised of wounded soldiers, became an input to the second panel, consisting of female chaplains. The decision to use successive panels was a unique modification to the Delphi process not found in literature. The modification was in response to a complex problem. An anticipatory assumption was that female chaplains could provide expertise on how to help wounded female soldiers, but no previous research that described the pastoral support needs of wounded women could be found. Using successive panels allowed female soldiers needing support to provide direct but anonymous details to female chaplains who could respond with proposed solutions in an effort to solve the problem.

The third modification was that in the second round of Phase 2, participants did not evaluate all of the data. Female chaplains only voted on those items that were considered to be innovative. The restricted response was a change to the traditional Delphi method and was intended to evaluate only those items that were not in common practice. Typically, participants provide feedback on all data and suggestions that do not meet the established threshold are eliminated (Linstone & Turoff, 2002; Sobaih et al., 2012; von der Gracht, 2012).

This study utilized a multi-phased approach. Each succeeding phase built on the data from the previous phase. The multi-phase Delphi design has been used before. Snape et al. (2014) conducted a multi-phased, mixed methods Delphi study to investigate public involvement in social care research.

Combining the qualitative methodology with the Delphi design worked well in this study. Since the pastoral support needs of wounded women were unknown, semi-structured interviews enabled investigators to fully explore the accounts and experiences of participants. For some soldiers, it was the first time they had fully shared their stories. In the second phase of the project, qualitative interviews provided thick descriptions of chaplain responses to the needs of female soldiers. The semi-structured nature of the interview process gave the questioner the freedom to examine topics brought up in conversations that had not been considered at the outset of project planning.

Limitations

One limitation of this study is that it used the experience of female soldiers as a substitute for other kinds of competencies. While experience itself is a valid criterion for expertise (Sobaih et al., 2012), other types of experts, such as medical practitioners and mental health care workers might have been consulted. Lived experiences provide context-specific data, but are not generalizable to a larger population.

A second limitation is that no attempt was made to delineate the experiences of female soldiers by race or by rank. Race-based analysis might have determined that the support requirements of Black or Hispanic soldiers were significantly different than the needs of White soldiers. By the same token, enlisted soldiers might have been treated differently than officers and therefore had different needs.

Areas for Further Research

This study provided a model of how the Delphi technique can be modified in a variety of ways. Practitioners in fields that provide emotional support, such as social workers, human service providers, and victim advocates could use similar techniques to uncover the needs of their client population. Further research could also address the weaknesses of this study by focusing on race, rank, or sexual orientation.

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Author Note

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