The Federal Nursing Service Award

Individual Readiness in Nursing

COL Carol Reineck, AN USA

Introduction

Federal nursing professionals in 1998 and beyond must ensure effective nursing care in deployed environments. The body of knowledge about individual readiness for the delivery of effective deployed nursing care is not well developed. In contrast, many nursing theorists made substantial contributions to the development of the unique body of knowledge upon which traditional nursing care is based.1

Readiness seems to be the state of being prepared for something about to be done or experienced. The rich complexity of readiness and its relationship to deployed nursing practice are just beginning to be understood. As American federal nursing service members participate in Bosnia's follow-on forces and countless other operations around the globe, it is important to address this nursing issue. The aim of this qualitative, collaborative study, conducted from 1996 to 1997, was to clarify the concept of individual readiness as a determinant of effective deployed nursing practice.

Research Questions

This qualitative, exploratory study addressed two research questions:

(1) What is the nature of individual readiness?
(2) What are the component parts of individual readiness?

Conceptual Basis

Walz et al.2 stated that to operationalize a concept is to delineate how it will be measured. Measurement of a concept requires a multistep method. The first step is to formulate a theoretical definition that supplies meaning through the use of other concepts. The theoretical definition is developed after a careful review of the literature and available sources in which essential elements of the concept's meaning are delimited and logically organized. Subsequent steps are to specify variable dimensions of the concept's meaning, identify observable indicators of the concept, and develop means to measure the indicators.

The groundwork for all advances in science requires clarifying the basic ideas involved.3 These basic ideas are concepts, the analytical tools of the discipline. The conceptual framework for this inductive study centered on interrelated issues of substance (i.e., individual readiness) and method (i.e., concept clarification).

Concept clarification is simply the work of clarifying and relating basic ideas.4 If a concept is not clear, subsequent research and measurement may be based on false assumptions and yield results on which decision-makers cannot place their trust. Concept clarification is an inductive approach to science, yielding, rather than testing, hypotheses. Concept clarification led to improved operationalization of the complex concept of individual readiness.

Literature Review

Increasingly, federal nurses practice their profession in deployed environments. Zadinsky5 suggested that nursing personnel usually develop and sustain their competencies in the entry-level and advanced clinical skills used in their specialized areas of practice in fixed health care facilities where there exists a high-technology, automated environment. In contrast, Zadinsky5 suggested that when they are in a deployed status, nursing personnel use skills that they do not ordinarily use in fixed facilities. There are key differences between nursing care in fixed facilities and that delivered when deployed. Contrasts include specialized versus generalist nursing roles, high versus low technology, automated versus manual equipment, and moderate versus high diversity in clinical nursing scenarios.

Readiness reporting, although methodical and well intentioned, is limited in its ability to express the apparent complexity of readiness. This study aimed to engage in a systematic clarification of individual readiness so that its measurement would become more representative of the concept. This was viewed as
a crucial first step toward understanding and operationalizing the concept among federal nurses.

Experiences during the 1992 Operation Restore Hope in Somalia were described by authors who conducted 90 oral history interviews among federal nursing personnel who served during the operation. Deployed personnel had to adapt to the filthy, difficult living conditions, blowing sand, lack of supplies, discomfort, and danger. The authors found the need for flexibility and innovation among the deployed nurses. Expecting that everything one has in peacetime will be present in an austere theater of operations is unrealistic. The authors concluded their synthesis of the oral histories by suggesting that nurses who deploy must master basic skills such as use of weapons, personal defense, fieldcraft, and how to provide nursing care to people of a different culture with different values. The value of personal accounts of those who viewed individual readiness first-hand was a driving force for employing focus groups in the study reported in this essay.

Deployed nursing does not always mean overseas service. The National Disaster Medical System is predicated on the fact that the nation must be prepared for massive casualties accompanying future disasters in defense of the homeland. A group made up of military, federal, and private-sector medical and communications professionals reported the benefit of radio involvement in tests of the National Disaster Medical System. The benefits grew from the sudden need for increased information flow in emergencies. The authors also reported a feeling of intense psychological pressure among the participants, even in a test "play" scenario. The pressure was thought to be the result of unfamiliar procedures, unknown partners, and inexperience.

Others who have written on lessons learned reported similar psychological conditions. Individual readiness in a military sense bears certain similarities to civilian disaster planning. For example, some have suggested that, in disaster planning, the skill set, general health, potential stress reactions, and ability to withstand physical and emotional work are important considerations in predisaster planning. These considerations have implications for readiness at the individual level of analysis, which was the focus of this study.

In 1994, pioneers work was conducted to explore the behavioral and psychological responses affecting health and performance in the high-stress chemical and biological warfare (CBW) environment. The authors conducted an observation study of 37 soldiers and concluded that these are the responses to CBW: claustrophobia, difficulties with masks, overheating, feeling of failure, increased risk associated with dedication to the group, dehydration, failure to recognize danger, and anxiety. They suggested that further study should test the benefit of leader alertness, flexibility, ongoing availability, and willingness to engage in immediate problem-solving. These may reduce casualties in the CBW environment.

To summarize the literature review, deployed nursing—whether performed in the homeland or overseas—requires alteration in the skill set, adaptation to an austere environment, the need for flexibility, and proficiency with unfamiliar communication systems. In addition, authors cited the need for preparation to deal with confusion, psychological pressure, and intense physical and mental stresses of the CBW environment.

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Method

Because individual readiness is a social construct used to describe attributes of people who are about to deploy, focus groups explored the concept in semi-structured group sessions. A group leader moderated these sessions, which were held in an informal setting, with the purpose of collecting information. Focus groups have the advantage of including group interaction as part of the study. Data for this study were enriched through group interaction among knowledgeable people. The responses provided a strong basis for developing the concept of individual readiness and identifying its components parts.

Three focus groups were convened, each composed of military active, guard, and reserve component field-grade and company-grade officers and noncommissioned officers based in the continental United States representing a broad range of fixed and field medical units. Each focus group met in two sessions. Before the first focus group session, a pilot focus group was convened to test the automated brainstorming technology for ease of use and to evaluate the trigger questions for clarity and relevance.

Thirty nursing personnel were selected based on their deployed nursing experience and invited to participate in one of three focus groups held over the span of 8 months. All informants had either been deployed or had extensive experience at the strategic and policy level. Experts advise that 5 to 12 people are needed for each focus group, depending on the topic. Ethical considerations in this research were addressed. Informants were offered confidentiality but not anonymity. Strategies included using only first names and wearing civilian clothes in the focus groups.

The first session used electronic brainstorming technology and a technographer to detail the nature and component parts of individual readiness. The second session was a more traditional focus group in which informants discussed and further clarified the ideas generated in the first session. Methodological rigor was ensured by optimizing credibility (truth value), transferability (usability), dependability (consistency), and confirmability (the criterion of neutrality).

Analytic procedures fell into five modes: organizing the data; generating categories, patterns, and themes; testing emergent hypotheses against the data; searching for alternative explanations for the data; and writing the report. For each focus group, automated output from the electronic brainstorming session and professional transcription of data from the second session were submitted for content analysis. The purpose of the content analysis was to search for themes.

In focus group research, the group is the unit of analysis. There was a group-by-group progression of analysis. Data were organized by professionally transcribing audiotapes from the focus group sessions and notes from the investigator-observers. The transcriptions were then entered in the computer program Ethnograph for assistance in coding the data.

The process of category generation involved noting regularities in the discussion of the informants. As categories and patterns among categories were found, a process began to challenge the very patterns that seemed evident and to develop an argument for the interpretation of the data.
Results

During the course of the study, the following definition of individual readiness evolved from the focus groups: "Individual readiness is a dynamic concept with dimensions at the individual, group, and system levels, which, together, influence one's ability to prepare to accomplish the mission." Recurring themes from the three focus groups specified six interrelated components of individual readiness and their corresponding ideas. The six components are (1) clinical nursing competency, (2) operational competency, (3) survival skills, (4) personal/psychosocial/physical readiness, (5) leadership and administrative support, and (6) group integration and identification. Each component is described by the many ideas suggested by the focus group members. Verbatim comments elucidate the richness of each component.

Clinical Nursing Competency

The clinical nursing competency component included the ideas of technical proficiency, ability to use nursing skills with field equipment, physical assessment skills, clinical decision-making acumen, and trauma/atriage skills. In addition, clinical competency was related to flexibility, the state of being cross-trained in more than one area of concentration, and the ability to perform in nontraditional roles. It was mentioned that for some, there is embarrassment about lack of knowledge in these areas.

Other concerns about clinical competency included the need for skills in pharmacy conversion, care of CBW casualties, blood management, and infectious disease management. Focus group members indicated that there was the possibility of skill decay during deployment, especially for nurse anesthetists, if the clinical situations are primarily medical, rather than surgical, in nature. There was a firm belief that training to standards across all components of the services was critical. Less agreement was achieved on whether to train to proficiency or to familiarization.

Members' quotes on clinical competency emphasized its preeminence as the most important component of individual readiness.

- "Clinical competency in my mind comes down to three areas: (1) military specialty-related skills; (2) military-unique clinical skills over and above what you normally do in your workplace; (3) trauma intervention capability."
- "... and that is why the training, education, all those things are worth zippo unless you dedicate more than 3 days in a year in the field. Three days are enough to convince you that you don't understand the place."
- "Readiness training to me is not something you can fix on a weekend or in a year. It is a life cycle model of one's career in the military."

One respondent stated with conviction, "Readiness is what you are, not what you know. That's a frame of reference we have a problem accepting. It's not to do something, it's to be. We need to change it from something that's out there that you might have to do... to what you are."

Operational Competency

Operational competency related to the ability to use skills in an operational environment. That is, that the nurse would understand how to achieve the mission of nursing care along the entire spectrum from low-intensity conflict to full-scale war. This component involved understanding the various roles and processes that influence care in the culture and organization of an operational environment. It included knowing how things work in an austere field setting and being able to improvise. The need for a basic knowledge of tri-service operational principles and terminology was also discussed.

Some focus group members cited the 9-to-5 mentality of personnel in the fixed or civilian facilities in peacetime. They indicated that, as needed, field nursing goes on until the work is done, without regard to shifts. Members' quotes on operational competency suggested that being competent is not enough, and that understanding the operational environment is also very important.

- "Taking care of patients in the field is tough for the numbers of people we have to train."
- "You may have to do 'just in time' training."
- "A lot of people don't know what the mission of the unit is or what they're supposed to be doing in their position."

Survival Skills

Survival skills included weapons familiarization, tactical proficiency, and knowing how to safely live, work, eat, and sleep in the field. It included proficiency in using communication equipment, knowing the roles of all team members, understanding the flow of information, and knowing how the force is protected, and managing oneself with respect to time.

There were concerns about preparation for the CBW environment, e.g., having a proper-sized protective mask with filters. Focus group members also indicated that because survival is not always achieved, there is the need to train and mentor subordinates to replace oneself.

Personal/Psychosocial/Physical Readiness

Personal considerations included having a sufficient supply of medications for 6 months away from a full-service pharmacy and having personal stress-relievers such as reading material or physical activity. Some focus group members suggested mandatory contraception classes at basic training and before deployment.

Also, on the personal side, family support was identified as extremely important. Members stated that male spouses of service members are often left out. Having 3- to 6-month rotations instead of 12-month rotations was cited as a positive factor for families that would provide more individuals with deployment familiarization. Additional personal readiness issues were the importance of courage, commitment, ethics, and integrity. Members' quotes on personal readiness revealed the unpredictability of the deployed setting and its effect on the person.

- "It is somewhat difficult to explain to people that there is a different kind of preparation... every time you walk in that tent may be different... from no water today, to no air conditioning today, to no patients today, to we're breaking down today, or today is now night."
- "It's all back to a lot of individual responsibility."

Powerlessness, frustration, and anger were deployment emotions that came to the forefront. Some members reported that
although many want to be in the federal service, being deployed is another thing. Psychosocial issues ranged from the importance of a healthy mind-set to having peer support. Learning to live with others, tolerance for ambiguity and confusion, and preparation for loneliness and separation were other areas that generated discussion. Having an attitude of flexibility, being willing to do new things, and adaptability to changing situations also emerged as themes.

Knowledge of force-protection measures and security plans were identified as instrumental in minimizing fear of the unknown. The focus groups mentioned the need for quiet time during deployment, especially for those who are recharged by being alone. Living conditions were discussed at length. Members cited the stress of lack of privacy, male/female or officer/enlisted billeting issues, and living in crowded, close conditions. Members’ quotes on psychosocial readiness pointed to the emotions that one might expect in the deployed environment, for which there must be adequate preparation.

— “You know, we give people a mission and you never know what we’re going to end up doing with them.”
— “Skin hunger is not getting hugged or touched for weeks/months at a time.”
— “Mental discipline in the field is the key.”
— “I think there’s room to just sit down and talk . . . just in time . . . prior to deployment . . . about what to expect. Talk about your expectations!”

Physical fitness was identified: not only to pass the fitness test, but also to have the stamina to perform physical work in deployment. Focus group members agreed that being able to go through tough, realistic training in a “train-as-you-fight” mode will require optimum physical readiness. It was emphasized that physical readiness does not receive much emphasis in the reserve components. Members’ quotes on physical readiness emphasized the endurance and stamina required to be ready for deployed nursing.

— “If I pull you out of your house and you’re going to go to the field with me and we’re going to stay out there for 8 months in an area that’s 100 degrees . . . you have to have the responsibility to maintain the physical and mental stamina to do that.”
— “Physical fitness in the field is quite different . . . and we don’t train for that.”

Leadership and Administrative Support

The need for strong leadership to instill confidence was a topic emphasized over and again. Focus group members believed that in establishing a good command climate, leaders had a responsibility to ensure that service members had up-to-date family care plans, eliminate fraternization, teach the command structure and support system, and clearly communicate the mission. Communication from leaders was identified as a significant way to reduce stress. It was mentioned that training often focuses exclusively on technical skills or tactical proficiency rather than on leader development. Members’ quotes on leadership demonstrated significant gaps in leadership that adversely affect individual readiness.

— “There is no true mentoring happening at the unit level.”
— “Leaders show a lack of planning.”
— “We give skill training to people who should have leader training.”

Administrative support as an important component of readiness included the need for a standardized, up-to-date, automated individual readiness database. Other databases needed were those to identify licensure renewal, status of profiles, continuing education attendance, and certification verification. The benefit of welcome packages was emphasized. Administrative support for legal actions and family support communication were very important. Members’ quotes on administrative support suggested notions of communication with families and making priorities.

— “. . . they just basically left and went to the field, had no idea when they were coming back and didn’t even communicate with the spouses.”
— “Focus on those who need to go first. There ought to be tiers.”

Group Integration and Identification

Group integration, or working together as a team, was one of the most interesting of the patterns that emerged. Integration, a sense of “one,” required an understanding of the skills of unit members and a history of training with the unit before deployment. Members cited the Joint Readiness Training Center as an excellent environment for building trust, communication, and effective working relationships.

When a group achieves integration, there is a sense of identification that develops. A willingness to train and assist subordinates and peers for the benefit of both the individual and the group demonstrates the clear benefit of collective training. Members’ quotes on group integration and identification indicate how deployed nurses build a new sense of family, in terms of both training and living.

— “So you can say . . . well, I didn’t get it this time, but I know I’m going back with them again, so I can build on that in the future.”
— “Collective training is where you acquire the unit cohesion that helps you get capable.”
— “When you’re working in a regular hospital, you go home at night . . . to your family . . . and your familiar surroundings. So when you’re out in the field, though, when you walk into that tent, that’s home, that’s it, and all those people around you, that’s family.”

Conclusions and Future Directions

Focus group members with extensive deployed nursing experience participated in this projective approach to describe individual readiness. Findings from their input helped develop a working definition of individual readiness and a description of its component parts. Issues regarding each component at the individual, group, and system levels were identified as critical to resolve to achieve and maintain readiness to deliver effective nursing care during deployment.

Historically, individual readiness was reduced to measures and reports based on indicators such as weapons qualification, receipt of immunizations, possession of a will, family support
plan, and gas mask inserts. With the increasing numbers and kinds of deployments facing America's federal nursing forces, it is imperative to assist each service member with the more complex issues such as competency to use clinical nursing skills in an unfamiliar and austere environment with rudimentary equipment and numerous inherent personal and organizational stressors.

The results of one method of inquiry, such as this qualitative study, can provide a critical foundation for the next stage of a study involving another method. Identifying and describing the components of individual readiness was the first step in developing an instrument for its measurement. The next step in this research program is pilot testing a proposed investigator-constructed instrument called the READI, for Readiness Estimate and Deployability Index.

The reliability and validity of the READI will be estimated in pilot work beginning in the autumn of 1993. The READI instrument may then serve as a useful measurement tool for federal nursing leaders whose great responsibility it is to ensure the readiness of deployed nursing personnel. Deployed nursing care performed by dedicated personnel in the federal sector will be at its finest when the six components of individual readiness suggested by this sample of highly experienced federal nurses are considered. A more contemporary and complete understanding of individual readiness can lead to improved deployment preparation programs for federal nursing personnel.

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