Does Culture Influence the Needs of Critical Care Families?

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Please submit this form to the Graduate Coordinator. Attach abstract, two copies of the manuscript, and documentation of submission to the journal (i.e., postal receipt).
May 22, 2006

Marjory Spraycar
Editorial Manager, Journal of Transcultural Nursing

Dear Marjory Spraycar, Editorial Manager:

On behalf of my co-authors, I am submitting the manuscript, "Does Culture Influence the Needs of Critical Care Families?" to the Clinical Practice or Research departments for consideration for possible publication in the Journal of Transcultural Nursing. I attest to the fact that all authors listed on the title page have read the manuscript, attest to the validity and legitimacy of the data and its interpretation, and agree to its submission to the Journal of Transcultural Nursing.

The purpose of the manuscript is to discuss the needs of families, particularly Vietnamese and Latino families when a patient is admitted to the ICU and how cultural groups perceived their needs as met. Through this article I hope to increase healthcare providers knowledge on the delivery of culturally consistent care to ethnically diverse families. Neither this manuscript nor one with substantially similar content under our authorship has been published or is being considered for publication at another journal.

Sincerely,

Naomi Alston RN, BS, MS
Does Culture Influence the Needs of Critical Care Families?

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Does Culture Influence the Needs of Critical Care Families?

Abstract

Purpose: This study explores ICU patient’s family member needs, particularly Vietnamese and Latino families.

Design: Convenience sampling at 24 bed ICU in acute care community hospital serving ethnically diverse population.

Methods: Non-experimental survey with pretest-posttest design using Demographic sheet, Critical Family Needs Inventory (CCFNI), and Needs Met Inventory (NMI). Information pamphlets were distributed. Data analysis was by ethnic groups using measures of central tendency and descriptive statistics.

Findings: CCFNI results indicate family members of all ethnicities experience the same priority of needs; support and information are top two needs. English, Spanish and Vietnamese pamphlets met information needs of the majority of the recipients.

Keywords: Latino, Vietnamese, family needs, critical care
Does Culture Influence the Needs of Critical Care Families?
Introduction

The US population continues to be racially and ethnically diverse. The 2004 census information released by the US Census Bureau (FedStats, 2006) indicated a 4.3% change in the US population since 2000, with California changing by 6%, adding approximately 1.4 million new residents. In 2004, of the more than 35 million residents of California, 59% were white, 6.7% black, 32.4% Hispanic/Latino, and 10.9% Asian. This is significant in that by 2050, the racial and ethnic minority populations are predicted to compose nearly 50% of the US population, with the Hispanic/Latino population representing 24% and Asians 8% (US Census Bureau, 2004a).

The responsibility of the nurse is to view a patient from a holistic perspective. Patients are members of families that are often complex structures and these families are involved in care decisions and have specific needs that should be met. A “family need” can be defined as “a requirement, which if supplied, relieves or diminishes their distress or improves their sense of adequacy and well-being” (Leske, 1998). Family needs of patients in critical care have been the subject of extensive study. This article reports how ICU patient family members perceive their needs met and the usefulness of ICU information pamphlets provided in the family’s native language to include English, Spanish, or Vietnamese in an acute care setting in northern California.

Literature Review

A serious illness may be an unexpected, hazardous event that could produce a state of stress and upset. This upset, a crisis, increases individual dependency needs and may exceed the person’s current resources and coping mechanisms. The family often performs a critical role during a patient’s illness requiring intensive care. Understanding concepts and strategies that
form the basis of crisis theory are fundamental to the understanding and timely implementation of appropriate and essential interventions for a family unit. Appleyard et al. (2000) conducted research on nursing interventions to reduce families' crisis response and improve coping. These authors explain how timely assessment by nurses and the implementation of appropriate interventions is essential for a functioning family unit in crisis. Henneman and Cardin (2002) stress that the most important needs of families of ICU patients are: the need for information, the need for reassurance and support, and the need to be near the patient.

Nancy Molter (1979) conducted a research study at two large teaching hospitals that focused on what family members perceived as their needs during a crisis situation, when a family member is critically ill and hospitalized. The framework of the research was Crisis Theory and Family Centered Care, a holistic approach. This descriptive study concerning the needs of family members by Nancy Molter resulted in the creation of the Critical Care Family Needs Inventory, an instrument consisting of 45 need items corresponding to the five dimensions: (a) support, (b) comfort, (c) information, (d) proximity, and (e) reassurance (Leske, 1991). This inventory was used through the 1980s and 1990s. Now, modified versions are used based on the critical care setting and the subject's cultural background to identify and rank the needs of critical care families (Holden, Harrison, & Johnson, 2002). To address cultural and language needs, the Critical Care Family Needs Inventory (CCFNI) has been translated to French (Azoulay et al., 2002), Spanish (Zazpe, Margall, Otano, Perochena, & Asiain, 1996), Chinese (Lee & Lau, 2003), Arabic (Al-Hassan & Hweidi, 2004), Portuguese (Novaes et al., 2001) and Dutch (Bijttebier et al., 2000).

In addition to the development of the CCFNI, Molter's (1979) study also revealed that nurses meet the majority of family needs, with information identified as one of the most
important needs. Bond, Draeger, Mandleco, and Donnelly (2003) examined the family information needs specific to severe brain injury patients in a neurosurgical ICU. The study identified the following four common themes among the family members:

1. The need to know. Here, family members prefer realistic information regarding the patient’s condition.
2. The need for consistent information.
3. The need for involvement in care.
4. The need to make sense of the experience. The family wants to understand the patient’s experience.

A mid-western university medical center conducted a qualitative study to document and describe experiences and realities of families with relatives in the surgical-trauma ICU. Jamerson et al. (1996) used a group interpretive process to code, categorize, and identify themes from transcribed interview data. The Model of Families’ Experiences in ICU emerged in which four categories or stages of experiences were identified: (1) hovering, (2) information seeking, (3) tracking, and (4) gathering resources. The study findings show how families experience uncertainty that is eventually resolved by seeking information and resources. The study also suggests healthcare providers take a proactive stance when addressing family needs for information. Hence, “offering information is an important treatment aimed at preparing or moving the family toward understanding and accepting the critical situation and its possible outcomes” (Leske, 1998).

Jones, Bond, and Cason (1998) emphasize the importance of examining systems of care, giving specific consideration to cultural meanings and social relationships influencing health care systems. They indicate that when an organization is dedicated to holistic care that is
culturally competent, one of the most important variables is development of a culturally competent workforce. Waters (1999), focusing on cultural representation in research investigate the perception of nursing support for culturally diverse families of critically ill adults. Here, African American, Hispanic, and Caucasian family members were interviewed and surveyed to examine the expectations. Culturally linked differences found were associated with communication between staff and family as well as the need for health care providers to interact and provide direction with multiple members of a family. Ultimately, the study acknowledged the need for interventions addressing culturally specific needs.

Gonzales' (2002) discussion of cultural diversity is written from a non-English speaking patient's perspective of their individual needs while hospitalized. Gonzales explains that caregivers must remember that although the patient belongs to a specific cultural group they are caring for unique individuals and these individuals are intimately connected to others, their family members. They are asked to remember that the family members are important to the patient and also in need of care, requesting behaviors and acts that include patience, providing explanations, as well as showing respect and genuine interest.

The US Census Bureau reports for 2000 more than 10 million individuals of Asian ancestry in the United States, with Asian Indian, Chinese, Filipino, Korean, and Vietnamese comprising 80 percent of this population (US Census Bureau, 2004b). It is also reported that 69% of all Asians are foreign born with a high proportion entering the United States in the past two decades. McLaughlin and Braun (1998) acknowledging the growing ethnic diversity in the United States and investigated the perspectives and values of Asian and Pacific Island cultural groups, including how cultural values influence health care decision-making. Their discussion of Vietnamese culture emphasized collectiveness, family unity, and filial piety. They also discuss a
strong connection to Buddhism, the connection of karma and longevity, as well as the maintenance of harmony. They conclude that family members are involved in major health care decisions; however, while attempting to maintain harmony, they may be reluctant to say no or question a physician or healthcare provider. In terms of communication with Vietnamese patients, Ogden and Jain (2005) discussed the desire to please one’s physician and not to point out problems. Looking at the Vietnamese culture, Labun (2001) discussed the provision of culturally competent care and nurses’ experiences with Vietnamese clients. The nurses’ perception of their learning from the experience, their perceptions of culturally competent care, and the changes made to their care as well as their personal lives based on the experience were evaluated. The nurses discovered how to provide more sensitive care to Vietnamese by learning to see the patient; this involved the acknowledgment of a common humanity as well as understanding how these patients see health. The process of cultural discovery was the catalyst for nurses to move beyond their own world-view and personal biases, assisting in their work with Vietnamese clients.

The US federal government defines a Hispanic or Latino as a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin regardless of race (US Census Bureau, 2004c). The United States Hispanic population increased from 22.4 million in 1990 to 35.3 million in 2000, an increase of approximately 58% (Guzmán, 2001), with Mexican Americans being the fastest growing group (Zoucha & Reeves, 1999). Gorek, Martin, White, Peters, and Hummel (2002) explore the expectations of Mexican Americans regarding care for elders. Based on findings from their study, they proposed the development and implementation of a cultural liaison. Themes identified as a result of the study included: the importance of maintaining family aid and love; violation of cultural norms and values; and
maintenance of cultural norms and routines, which included maintaining communication in the Spanish language. They concluded that understanding and making accommodations for cultural norms is imperative when attempting to provide culturally congruent care.

In regards to staff communicating in the Spanish language, Amerson and Burgin (2005) recommend methods for increasing nursing students’ knowledge of medical terminology in Spanish, which would ultimately improve communication with Spanish speaking clients and families; this could be a critical component of client advocacy. Zoucha and Reeves (1999) explain that a nurse’s attempt to communicate in Spanish is viewed as personal and caring. To facilitate effective communication in Spanish, Kleinpell, Vazquez, and Gailani (2000) suggest the use of reference guides as an adjunct tool to help interpreters and assist in translating for nurses who are working with Spanish speaking critical care patients. In regard to written communication provided to patients and their families, it is important to remember that many foreign-born have low literacy having only obtained a seventh grade education or less in addition to difficulty with the English language (Poon et al., 2003).

To receive information was an intervention identified by Molter’s original study to decrease family stress in critical care areas. Structured communication programs for family members have been found to increase family members’ satisfaction with care and meet their needs for information (Medland & Ferrans, 1998). Leske (2002) further explains that meeting this need for information in addition to reducing stress also lays the foundation for family decision making, this information may be provided in the form of direct communication framed by guidelines, videotapes, as well as booklets. Lopez-Fagin (1995) evaluated ICU nursing staffs’ use of family guidelines for providing holistic care that included both patient and family. These guidelines were available to both nurses and family members as a means for communicating care
goals and expectations, and resulted in positive communication between staff and family members. Mahler and Kulik (2002), linking “anxiety to preparedness,” evaluated the effectiveness of videotaped information on alleviating family anxiety, a strategy that improved patient recovery for major surgery patients. Azoulay et al. (2001) and Bond et al. (2003) discussed the incorporation and use of family information booklets as components of critical care family support programs. The studies found that information provided in booklets provided a positive impact; however staff were required to provide additional supportive interventions for complete information. In the healthcare setting, with growing cultural and ethnic diversity, Dunkley, Hughes, Addington-Hall, and Higginson (2003) evaluated the impact of translation of clinical tools (i.e. questionnaires, checklists, leaflets) as a means for more effective communication between nurses and patients. Although translated tools were found to “bridge the language gap”, a key consideration when translating tools was the level of literacy of the intended population and that complementary tools such as videotapes and interpreter may also be required.

Purpose

To receive information is an intervention that decreases family stress in critical care areas and is crucial to family members' satisfaction with care. The purpose of this research project was to address the information needs of ICU patient family members in a healthcare environment with ethnically diverse populations. Identification of specific family needs dimensions that predict satisfaction with care may provide insight regarding strategies for developing structured communication programs that are culturally competent.
Theoretical Perspective/Conceptual Framework

An amalgamation of concepts was employed from conceptual frameworks that include: Crisis Theory, Family Centered Care, and Model of Families’ Experiences in ICU.

Hoff (2001) describes crisis as “an acute emotional upset arising from situational, developmental, or socio-cultural sources and resulting in a temporary inability to cope by means of one’s usual problem-solving devices” (p.4). A patient’s admission to intensive care is a stressful event that creates a crisis for the family that affects coping, functioning, communication, and understanding. Family-centered care is a philosophical approach that recognizes the needs of the patient’s family and their role during the patient’s illness. Per Henneman and Cardin (2002) a family-centered care unit views the patient’s family as the unit requiring care and organizes care around the family. In addition, family centered care recognizes the crisis of illness and the impact on patients and family members.

The Model of Families’ Experiences in ICU (Jamerson et al, 1996) identifies 4 stages that patient family members experience upon admission to ICU:

1. Hovering described as the initial sense of confusion, stress, and uncertainty
2. Information seeking which is the active process of gathering information about the patient
3. Tracking which entails observing, analyzing, and evaluating the patient’s care
4. The garnering of resources, which involves the acquisition of what family members, and what they perceive as their needs.

The ultimate goal is to move the family members from the hovering stage by anticipating their information needs that entails answering questions and providing information.
It was expected that the following research questions would illuminate cultural meanings, family needs, and interventions that alleviate family crisis responses that result from an ICU admission:

1. What is the relationship between culture and identified needs of all families in particular Vietnamese and Latino family members of patients in ICU as measured by the Critical Care Family Needs Inventory?

2. How does having ICU family information pamphlets in English, Spanish and Vietnamese impact the scores of the Needs Met Inventory?

**Research Design/Methodology**

**Research Setting**

The setting for this study was a 24 bed ICU in an acute care community hospital with an average census of approximately 1000 patients per month located in a northern California urban city. This location was chosen for their ethnically diverse population and accessibility.

**Inclusion Criterion**

After approval from the appropriate human subjects committees, ICU patient family members were asked to participate meeting eligibility criteria in the ICU waiting room or patients’ room. These criteria included:

1. Member of representative groups that speak Spanish, English, or Vietnamese
2. At least 18 years old and related to patient by blood, marriage, adoption, or significant other
3. Able to read or write Spanish, English, or Vietnamese
4. Family member of patient with ICU admission within the previous 24 hours.
5. Visits the patient and is available 72 to 96 hours after admission to ICU.
Study Instruments

A quantitative, descriptive survey study using a convenience sample and a pretest posttest design focused on gathering information that deals with family issues and concerns. The instruments included a Demographic Data sheet, Critical Family Needs Inventory (CCFNI), and Needs Met Inventory (NMI). In addition to English, Spanish and Vietnamese translations the questionnaires were available therefore written permission was obtained to use and adapt both the CCFNI and NMI. Demographic characteristics of the sample included: age, gender, highest completed education level, relationship to patient, whether English was a second language (ESL), and whether the family had experienced ICU care in the past.

The Critical Care Family Needs Inventory (CCFNI), an instrument consisting of 45 need items corresponding to the five dimensions: (a) support, (b) comfort, (c) information, (d) proximity, and (e) reassurance was selected as the baseline tool for assessment as it had been used to identify needs of families by researchers in diverse care environments and was translated into multiple languages. Although not specifically measuring cultural needs, scales of the Critical Care Family Needs Inventory (CCFNI) provides measures of variables to rate the importance of families needs in the ICU environment using a 4-point Likert scale with the following scoring choices: 4 = very important, 3 = important, 2 = slightly important, or 1 = not important. The validity and reliability of the CCFNI has been evaluated and established. Leske’s (1991) research established the total CCFNI internal consistency alpha coefficient of 0.92, reflecting a low level of error based on selected scores. Research by Macey and Bouman (1992) calculated a Gunning Fog Index of 9.0; hence individuals at a ninth reading level could understand the tool. Morgon and Guirardello (2004) confirmed validity of the ratio-level scales for family needs of the CCFNI with results of a Pearson coefficient of $r=0.97$. 
The Needs Met Inventory (NMI) developed by Warren from the CCFNI uses a 4-point Likert scale to rate whether perceived needs identified in CCFNI were met (Kosco & Warren, 2000). NMI scoring choices are: 4 = always met, 3 = usually met, 2 = sometimes met, or 1 = never met. To gain knowledge regarding the importance and impact of literature in the form of a pamphlet an additional item, # 46 was added to both the CCFNI and NMI. Here, respondents rated how this intervention helped with questions and concerns or information seeking.

Procedure

Data collection for this study took place over a one-month period. Translators were available to assist with Spanish and Vietnamese language needs. To maintain confidentiality, after consenting all participants were assigned a unique identifier that was used on each corresponding survey as well as during data entry. The process started by identifying newly admitted ICU patients within the first 24 hours of admission. Eligible families were invited to participate, consent was obtained from those agreeing to participate. Twenty-four hours after admission one family member completed the surveys and returned it to the investigator in the ICU. Initial questionnaires include demographic data and the CCFNI. After completion of the initial questionnaires a copy of the Critical Care Survival Guide, a pamphlet available in Spanish, Vietnamese, and English explaining the processes and procedures for ICU patient family members were distributed to the participants. At the time of distribution, the pamphlet contents were reviewed with the participant by the investigator. Upon patient transfer out of ICU or 72 hours after admission to the ICU, the Needs Met Inventory (NMI) was explained and distributed to the patient family member for completion. Both the CCFNI and NMI took approximately 20 minutes to complete although no time limit was set. All patient lists, which
included the participant list with corresponding identifier codes, were maintained by the investigator and locked in the manager’s office, stored in a designated locked drawer.

Results

To differentiate the sample descriptive statistics such as frequencies and percentages were calculated. A total of 36 family members participated in the study by completing the two initial surveys. As a result of deaths, discharges, transfers out of the facility, or the inability to contact the participant, 26 Needs Met Inventories were completed for a 72% return rate. As shown in Table 1, the ethnic makeup of the group was largely composed of Latino (44%), Caucasian (16.7%), and Vietnamese (13.9%). Of the participants, 86% were female (n=31) and 13.9% were male (n=5). More than 38% were between the ages of 30-39 years of age (n=14), both age groups 40-49 years and 60 years plus were 16.7% (n=6). Of the surveys distributed, 80% of the respondents completed English versions of the questionnaires, 13.9% Spanish, and 5.6% Vietnamese; while 58% reported English as their second language. This information allowed for the examination of differences, particularly by ethnic groups.

For both the CCFNI and NMI questionnaires frequencies, means, and percentages were calculated using the 4-point Likert-scale numeric responses from each survey’s 46 individual statements. The calculated mean values from each statement’s score were assigned to one of the five dimensions: (a) support, (b) comfort, (c) information, (d) proximity, and (e) reassurance. Examination of relationships occurred and comparisons made based on ethnicity using the summarized mean score values. CCFNI mean values by dimension for all ethnic groups (see Table 2) rated identified needs in the following hierarchical sequence indicating priority of importance: (1) Support, (2) Information, (3) Assurance, (4) Proximity, and (5) Comfort.
Hierarchical ratings of importance of need by dimension for Vietnamese and Latino groups are shown in Figure 1 and reflect that of the group.

NMI data analysis rate how well the family members perceived their needs were met. Again, mean values for the responses by dimension were calculated and ranked based on ethnicity. All ethnic groups rated the dimension of support in first place, with comfort scoring the lowest among all dimensions. As shown in Table 3, the dimensions proximity and assurance rate three or four among the groups. However among the Vietnamese, the dimensions of assurance placed second with information in fourth place.

The Pearson's correlation was calculated to find an association between the CCFNI and NMI dimension results. All like dimension (i.e. CCFNI Support and NMI Support $r=0.306$) values from the two surveys showed positive correlation results however the dimension assurance possessed a negative correlation ($r=-0.073$) (see Table 4). Level of significance for all dimension values however does not support the existence of a relationship between CCFNI and NMI dimension results.

The ICU family information pamphlets in English, Spanish and Vietnamese met the needs of the majority of the recipients as indicated by the scores received for question 46 of the Needs Met Inventory. Sixty-four percent of the total respondents ($n=25$) indicated that the Critical Care Survival Guide always met their needs and 11% indicated the pamphlet usually met their needs. To determine if specific characteristics of the group members influenced the responses to this question, t-test for independent groups was performed. Here, the goal was to compare the difference between the means of two groups on the same variable. Using this technique, CCFNI and NMI responses to item 46 “To have an information booklet that helps with questions and concerns,” were analyzed against responses to the following demographic...
items: (a) Level of school completed, (b) member of family in ICU in past, and (c) English is second language. Using one-way ANOVA statistical significance was found between the responses of the CCFNI and “level of school completed.” Here, respondents who graduated from high school or received less education rated the availability of a booklet as important (significance .046).

Discussion

Culture is an importance aspect in a person’s life, influencing individuals, families, and communities regarding their health and care decisions (Zoucha & Husted, 2000). Characteristic of cultural competence as described by Purnell and Paulanka (1998) include development of self-awareness without undue influence on others, demonstrating knowledge and understanding of the client’s culture, accepting and respecting cultural differences, and adapting care to be congruent with the client’s culture. Cultural competence is a crucial aspect in the delivery of quality health care as it involves respect for diversity in language, religion, customs, values, and traditions. Cultural competence is essential for health care workers, for this reason; there is an expectation for health care providers to learn something of the values of the people they serve. The CCFNI responses indicated that family members of all ethnicities experience the same priority of needs when faced with the stress of a family member in ICU. Support and information were the top two needs dimensions identified for all ethnic groups and are paramount for relieving family stress. This finding speaks to common humanity and common needs. When providing holistic care that includes both patient and family, health care providers reminded that although individuals may belong to specific ethnic-cultural groups with common patterns of community, family, beliefs and ideologies; each patient, each family member, each situation, must be approached as an individual when exploring needs.
Understanding family member satisfaction with how well their needs are met by ICU care providers is imperative when providing interventions that relieve family stress. The dimension scores of the Needs Met Inventory (NMI) by ethnicity indicated culturally linked differences to fulfillment with the dimensions information, proximity and assurance. Satisfaction with the effectiveness in the delivery of information to family members is essential for their participation in care. Holistic, family centered care that is culturally specific, based on cultural knowledge could guide nurses in giving care thereby enhancing communication resulting in improved care and patient outcomes.

The Model of Families’ Experiences in ICU identify information seeking as the second stage in the four-stage process of family experiences. Here, the stress of an ICU admission causes families to experience uncertainty that is eventually resolved by seeking information and resources. Cultural and language differences present challenges to health care providers. To enhance communication and improve the effectiveness of information family members were provided a pamphlet available in English, Spanish and/or Vietnamese. Analysis of the effectiveness of pamphlets based on responses from the NMI indicated that culturally sensitive and linguistically appropriate booklets are effective methods for providing information to families. In this study, the pamphlet was not distributed by care providers therefore additional information and explanations specific to individual needs were not provided during review of its content. Consequently, the results should not be interpreted to indicate that a pamphlet without verbal communication resolves family stress.

Friedman (2005) in White Coats and Many Colors reports 10 million Americans cannot read in any language, and 40 million cannot read English at a 5th-grade level. Understanding the education level of clients must be considered when developing literature in English as well as
other languages. The findings from analysis of responses from CCFNI and demographic data indicated that individuals with a high school education or less identified the availability of written literature as more important than those with higher levels of education. One aspect of distributing literature is the invitation for family members to talk with care providers thereby providing an opportunity to improve the knowledge of family members about the ICU, terminology, patient needs as well as discuss family issues and concerns.

Limitations for this study include length of time during data collection, one acute care setting, and no pilot testing of Vietnamese translated questionnaires. Collection of data over a longer timeframe and multiple locations within the same geographic location would allow for a larger sampling for each ethnic group. Reliability of the CCFNI Spanish version has been established and used in prior studies; reliability of Vietnamese translated tools should be established.

Conclusions

Cultural and language differences present challenges to care providers. By learning, understanding, and appreciating cultural differences care providers could enhance family member experience at a stressful time by creating an environment where care providers and family members work in collaboration to determine what is best for the patient. Information helps family members cope during the stressful time of an ICU admission. A family pamphlet that is culturally and linguistically appropriate can be a vehicle for providing pertinent information. In an effort to provide culturally competent care, organizations must look to creating a diverse work force of care providers at the bedside in addition to continuously training staff to provide culturally competent care in multicultural and multilingual environments.
Further investigational studies are needed to identify and evaluate culturally relevant methods to further improve the quality of information provided to ICU family members.
References


Table 1.
Characteristics of Family Participants  
\[
\begin{array}{ccc}
\text{N=36} & \text{Freq} & \% \\
\hline
\text{Gender} & \text{Male} & 5 & 13.9 \\
& \text{Female} & 31 & 86.1 \\
\text{Age group} & 18-29 \text{ years} & 5 & 13.9 \\
& 30-39 \text{ years} & 14 & 38.9 \\
& 40-49 \text{ years} & 6 & 16.7 \\
& 50-59 \text{ years} & 5 & 13.9 \\
& 60 \text{ plus} & 6 & 16.7 \\
\text{Level of school completed} & \text{Did not finish high school} & 5 & 13.9 \\
& \text{High school graduate} & 8 & 22.2 \\
& \text{Some college/tech/trade school} & 13 & 36.1 \\
& \text{College graduate or beyond} & 10 & 27.8 \\
\text{Member of family in ICU in past} & \text{Yes} & 19 & 52.8 \\
& \text{No} & 17 & 47.2 \\
\text{English second language} & \text{Yes} & 21 & 58.3 \\
& \text{No} & 15 & 41.7 \\
\text{Ethnicity} & \text{Asian} & 3 & 8.3 \\
& \text{Vietnamese} & 5 & 13.9 \\
& \text{Filipino} & 4 & 11.1 \\
& \text{Latino} & 16 & 44.4 \\
& \text{Black} & 1 & 2.8 \\
& \text{Caucasian} & 6 & 16.7 \\
& \text{Other} & 1 & 2.8 \\
\text{Completed Questionnaire Version} & \text{Spanish} & 5 & 13.9 \\
& \text{Vietnamese} & 2 & 5.6 \\
& \text{English} & 29 & 80.6 \\
\end{array}
\]
Table 2.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Asian</th>
<th>Vietnamese</th>
<th>Filipino</th>
<th>Latino</th>
<th>Black</th>
<th>Caucasian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assurance</td>
<td>27.3333</td>
<td>28.4000</td>
<td>29.5000</td>
<td>30.9333</td>
<td>31.0000</td>
<td>29.6667</td>
<td>32.0000</td>
</tr>
<tr>
<td>Support</td>
<td>37.3333</td>
<td>39.2000</td>
<td>43.3333</td>
<td>47.1333</td>
<td>46.0000</td>
<td>42.8333</td>
<td>44.0000</td>
</tr>
<tr>
<td>Information</td>
<td>32.3333</td>
<td>30.8000</td>
<td>35.5000</td>
<td>37.2000</td>
<td>37.0000</td>
<td>35.6667</td>
<td>40.0000</td>
</tr>
</tbody>
</table>

Note: Values derived from CCFNI responses. Means are calculated for Dimension subscales.
Table 3.

<table>
<thead>
<tr>
<th>Needs Met Inventory Dimension Subscale Ratings by Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension Ratings</td>
</tr>
<tr>
<td>Participants (n=26)</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>Asian</td>
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<tr>
<td>Vietnamese</td>
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<td>Filipino</td>
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<td>Latino</td>
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<td>Black</td>
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<tr>
<td>Caucasian</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

*Notes: Dimensions Assurance and Proximity for Blacks had equal value. Hierarchical sequences derived from mean values using ratings 4 = always met, 3 = usually met, 2 = sometimes met, or 1 = never met.*
Table 4.

Intercorrelations Between Dimensions for NMI and CCFNI

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Assurance</th>
<th>Support</th>
<th>Information</th>
<th>Proximity</th>
<th>Comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Needs Met Inventory</strong></td>
<td>r</td>
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<td><strong>Assurance</strong></td>
<td>r</td>
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<td>.306</td>
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<td><strong>Support</strong></td>
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<td>.202</td>
<td>.567</td>
<td>.531</td>
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<td>-.011</td>
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<td><strong>Proximity</strong></td>
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<td>.903</td>
<td>.490</td>
<td>.961</td>
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<td></td>
<td>n</td>
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<tr>
<td><strong>Comfort</strong></td>
<td>r</td>
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<td>.066</td>
<td>-.092</td>
<td>.015</td>
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Note: Pearson Correlation (r) was calculated to find an association between the CCFNI and NMI dimensions *p<.05, two-tailed. n= dimension sample size.
Figure 1.

Vietnamese and Latino CCFNI Dimension Results

CCFNI dimension mean values by importance for Vietnamese and Latino participants
To: Naomi Alston  
From: Pam Stacks, Ph.D.  
Date: February 21, 2006

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Study of Perceived Needs of Critical Care Families and the Usefulness of Information Shared When Translated to Vietnamese and Spanish"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Pam Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond February 21, 2007 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at [redacted].

Cc: Irene Lewis - 0057
December 19, 2005

Dr. Irene Lewis
Dr. Phyllis Connelly
San Jose State University
School of Nursing
San Jose, California

Dear Dr. Lewis and Dr. Connelly,

SUBJECT: NAOMI ALSTON STUDY WINTER 2006

I have discussed Ms. Alston’s winter semester project with the ICU Director Betty Kelly. As explained to me, I find that the project will have no direct impact on human subjects, will not change the care provided to patients here at Regional Medical Center, I do not anticipate any negative impact from this study, and the confidentiality of patient information will not be compromised. This study will not require review and approval by Regional Medical Center’s contracted IRB.

I do believe that this has the possibility of enhancing future care for patients here at Regional Medical Center and other facilities. Please contact me if you have any questions or need to discuss this further.

Best regards,

Susan Deringer
Chief Quality Officer
Hello Naomi,

You have my permission to use the Needs Met Inventory and any material that I will mail to you. You also may translate any of the material into Spanish or any other language that you may need for your research. I will be glad to assist you in any way that I can.

Sincerely,

Nancy A. Warren

Nancy A. Warren, PhD, RN

Professor & Chair

Department of Nursing

University of Tennessee at Martin

Martin, Tennessee

[Redacted]

[Redacted]
From: Jane Leske

Sent: Thursday, October 6, 2005 10:49 PM

To: Naomi Alston

Subject: CCFNI

Attachment: letter.doc (0.02 MB), CCFNI.doc (0.03 MB), CuestionarioSpanish.doc (0.05 MB)

Please find the information that you need attached. Good Luck.

Dear Researcher,

Please find enclosed a copy of the Critical Care Family Needs Inventory. You have my permission to use and/or translate the tool to meet your research needs as long as credit is referenced in your work. The psychometric properties of the instrument are published in Leske, J.S. (1991). Internal psychometric properties of the Critical Care Family Needs Inventory, Heart & Lung, 20, 236-244. Please do not hesitate to contact me if you have any questions. Best wishes for a successful research project.

Sincerely,

Jane S. Leske PhD, RN