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Family needs of critically ill patients in the emergency department

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ABSTRACT

Introduction: Family members' experience a range of physiological, psychological and emotional impacts when accompanying a critically ill relative in the emergency department. Family needs are influenced by their culture and the context of care, and accurate clinician understanding of these needs is essential for patient- and family-centered care delivery. The aim of this study was to describe the needs of Taiwanese family members accompanying critically ill patients in the emergency department while waiting for an inpatient bed and compare these to the perceptions of emergency nurses.
Methods: A prospective cross-sectional survey was conducted in a large medical center in Taiwan. Data were collected from 150 family members and 150 emergency nurses who completed a Chinese version of the Critical Care Family Needs Inventory.
Results: Family members ranked needs related to 'communication with family members,' as most important, followed by 'family member participation in emergency department care', 'family member support' and 'organizational comfort'; rankings were similar to those of emergency nurses. Compared to nurses, family members reported higher scores for the importance of needs related to 'communication with family members' and 'family members' participation in emergency department care'.
Conclusions: Family members place greater importance than emergency nurses on the need for effective communication.

1. Introduction

Comprehensive critical care in the emergency department (ED) that embraces a patient- and family-centered approach—that is, one which recognizes the needs of both patients and their families—is central to effective care delivery but is difficult to achieve. Prompt assessment of family needs and actions to meet these needs not only reduces family members' stress and anxiety (Carlson et al., 2015; Jabre et al., 2014), but also enhances patient recovery and satisfaction with care (Browning and Warren, 2006). Tension arises between nurses, patients, and families, however, if these needs are not met in a timely fashion (Hallgrimsdottir, 2000; Redley et al., 2003).

Globally, growth in demand for emergency care in the context of finite hospital resources has led to ED overcrowding, access block, ambulance ramping (Fitzgerald et al., 2014) and increased patient waiting time (Braitberg, 2007). These problems are experienced in Taiwan, where EDs treated approximately 7.33 million presentations in 2014—an increase of 6.7% over the course of a decade (Ministry of Health and Welfare, 2015). Long stays in the ED are well known to increase the stress experienced by patients, family, and staff (Olshaker and Rathley, 2006).

Family members are the main source of social support for critically ill patients throughout their illness, and they play an important role in assisting recovery (Karlsson et al., 2011; Yang, 2008). Family members of critically ill patients in the ED have been shown to experience anxiety, denial, depression, fatigue, a sense of powerlessness, and fear of losing their loved ones (Al-Mutair et al., 2013; Fry and Warren, 2007). Understanding and meeting family needs can ease these stressors so that family members can fully support the patient's recovery, explain patient preferences, and participate in clinical decision making.

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Over the past 30 years, many international studies have used the Critical Care Family Needs Inventory (CCFNI) to investigate the needs of family members of critically ill patients in a variety of contexts (Azoulay et al., 2001; Høghaug et al., 2012; Leske, 1986; Leung et al., 2000; Molter, 1979; Yang, 2008). Five dimensions of family need, first described by Leske (1986), have been identified in intensive and critical care units: support, comfort, information acquisition, reassurance, and patient access. Patient access' has emerged as particularly important to family members of critically ill patients (Al-Mutair et al., 2013; Sims and Miracle, 2006). Other needs consistently ranked as very important by families include honesty, frequent updates, knowing specific facts about progress, knowing about the expected outcome, and assurances that the best possible care has been provided. These studies, which have been conducted in adult internal medicine/surgical intensive care departments (Hughes et al., 2005; Kinrade et al., 2010), neurosurgical intensive care departments (Tin et al., 1999) and pediatric intensive care departments (Sturdivant and Warren, 2009), identified common patterns in family needs (Leske, 1991; Molter, 1979), but also showed that these are influenced by contextual factors. The ED is a unique care environment in which health personnel, patients, and family members face uncertainty and can encounter unexpected or sudden change in a patient's condition (Redley and Beanland, 2004). As yet, few studies have investigated the specific needs of family members of critically ill patients in the ED (Redley et al., 2003). The CCFNI-ED was developed from the original CCFNI to measure family needs in the ED (Redley and Beanland, 2004).

Family members have reported nurses are best able to communicate detailed information to them in an understandable way (Fox-Wasylyshyn et al., 2005; Yang, 2008). Nurses are ideally placed to meet important family needs in the ED given their frequent contact with patients and their families (Al-Mutair et al., 2013; Browning and Warren, 2006; Hallgrimsdottir, 2000). Research also shows, however, that health professionals' perceptions and priorities often differ from those of family members (Lynn-McHale and Bellinger, 1988; Wilson et al., 2015). The aim of this study was to describe the needs of Taiwanese family members accompanying critically ill patients in the ED as they wait for an inpatient hospital bed and compare these to the perceptions of the nurses caring for them.

2. Methods

2.1. Design

A prospective cross-sectional survey was conducted in a medical center in Taiwan with over 3700 beds and approximately 15,000 ED presentations each month. Purposeful sampling was used to recruit family members of critically ill ED patients' and Registered Nurses (RNs) working in the ED. Family members were identified as potential participants if (1) they were accompanying a patient who had been categorized as level I (Resuscitation), II (Emergent), or III (Urgent) in the five-level Taiwanese Triage and Acuity Scale, and (2) the patient had been waiting in the ED for more than 8 h to access an inpatient critical care bed. Family members were eligible to participate if they were related to the patient by blood, marriage or adoption, were over 20 years of age, and could communicate in Chinese verbally or in writing. Eligible RN participants were licensed ED nurses directly involved in patient care within the ED. Using G-power statistical software to estimate sample size (power: 0.8, α level: 0.05, effect size: 0.15), 150 family members and 150 RNs were recruited.

The study employed a self-administered questionnaire with the following components: (1) 40 items from the CCFNI-ED (Redley and Beanland, 2004) ranked on a four point Likert scale to indicate need importance (1 = not important, 2 = mildly important, 3 = important, and 4 = extremely important); (2) a Needs Met Inventory (NMI) which used the same items ranked on a four-point Likert scale (1 = need was unmet, 2 = need was mostly unmet, 3 = need was somewhat met, and 4 = need was fully met); and (3) demographic data. Consent was obtained from the original author to translate the CCFNI-ED (and NMI) items into Chinese. The translated instrument was reviewed by local ED experts for comprehensive coverage of family needs, face validity and cultural relevance. Back translation of the CCFNI-ED and NMI items resulted in minor modifications and the revised Chinese version was pilot tested with 30 family members and 30 RNs who were not included in the larger study. No further modifications were made.

The final Chinese version of the CCFNI-ED comprised 40 need statements classified into four domains of family needs derived from previous research (Redley and Beanland, 2004): (1) communication with family members, (2) family member participation in ED care, (3) organizational comfort, and (4) family member support. Possible total scores ranged from 40 to 160, where a higher score indicated a higher number of needs with a high degree of importance. Mean values were used to rank items, where a higher mean score indicated higher need importance. Face, content, and construct validity of the CCFNI-ED were established in previous studies (Leske, 1991; Redley and Beanland, 2004). Face and content validity for the Taiwanese context were verified using a panel of local experts as described above.

Examination of overall reliability of the Chinese CCFNI-ED using Cronbach's α value was 0.94 indicating acceptable internal consistency. The Cronbach's α for all subscales was also acceptable, ranging from 0.84 to 0.91. Similarly, the Cronbach's α for the overall NMI scale was acceptable (0.96) and subscales ranged from 0.81 to 0.92.

2.2. Data collection

Permission was obtained from the hospital's Institutional Review Board (102-2728C) and the ED supervisor prior to recruitment of participants. All participants provided written informed consent. The questionnaires were completed anonymously.

Potential family participants were identified from the ED database and were approached in the ED by a member of the research team who explained the study aims, data collection procedures, data confidentiality and participants' rights. Those who agreed to participate completed the self-report questionnaires, which were returned to a member of the research team.

Eligible ED RNs received written and verbal explanations of the study. Those who agreed to participate gave written consent and completed the self-report questionnaire. Recruitment continued until 150 completed questionnaires were collected from each participant group (July 2013 to June 2014).

2.3. Data analysis

Data were analyzed using SPSS 17.0. Frequency distributions, percentages, mean scores (M), and standard deviations (SD) were used to describe and rank the item data and Pearson's correlation, paired t-tests and multiple regression analysis were used for comparisons.

3. Results

3.1. Demographic characteristics

The characteristics of the family members and ED nurses who participated are presented in Tables 1 and 2. Of the 150 family members, 56.7% were female; nearly three-quarters (74.7%) were