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ORIGINAL ARTICLE

The effect of an ICU liaison nurse on patients and family's anxiety prior to transfer to the ward: An intervention study☆

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Summary While an admission to the Intensive Care Unit (ICU) is stressful, the impending transfer from ICU to the ward can also result in anxiety for patients and their families. The aim of this study was to identify the effect of an ICU liaison nurse on anxiety experienced by patients and their families just prior to transfer to the ward. This block intervention study used a repeated before and after design, with the first control and intervention periods of 4 months, a wash-out period of 1 month, and then a second control and intervention period of 4 months duration. That is, after 4 months of control and another 4 months of intervention, the liaison nurse services were withdrawn and no data collection occurred for a month (wash-out) then a second set of 4-month blocks of control and intervention were undertaken. A standard transfer protocol was followed during the control periods whereas during the intervention periods, the liaison nurse prepared patients and their families for transfer to the ward. The State Trait Anxiety Form Y (State) was used to measure anxiety just prior to physical relocation to the ward. A total of 115 patients (62 control, 53 intervention) and 100 families (52 control, 48 intervention) were enrolled in the study. There was no difference in anxiety scores between the control and intervention groups in either patients or family groups. This study did not demonstrate a statistically significant beneficial effect of the liaison nurse in terms of pre-transfer anxiety, however it highlights several methodological issues that must be considered for future research including sample size estimates, timing and measurement of transfer anxiety and finally the intervention itself.

☆ This study was conducted at Griffith University and the Gold Coast Hospital.

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The Intensive Care Unit (ICU) can be a stressful experience, not only for patients, but also for their families (Chaboyer et al., 2005a; Frazier et al., 2002; McKinley et al., 2003). Anxiety is an emotion and is a subjective, uniquely individual experience (Sadock and Sadock, 2003). It has been defined by the North American Nursing Diagnosis Association (NANDA) as ''A vague, uneasy feeling of discomfort or dread accompanied by an autonomic response, with the source often non-specific or unknown to the individual; a feeling of apprehension caused by anticipation of danger'' (Schweitzer and Ladwig, 2002, p. 144). Anxiety is estimated to occur in up to three-quarters of critical care patients (Frazier et al., 2002) and signals that a threat of some type has stimulated the stress response (Frazier et al., 2002). In ICU patients, the origin of anxiety may be both physiological and psychological given the alien critical care environment. Excessive and foreign noise, disturbed sleep, the presence of sophisticated and unfamiliar technology, loss of privacy, inability to communicate effectively, restricted mobility, and fear of death or disability are common to the critical care experience (Frazier et al., 2002).

Although discharge from ICU is a positive step in terms of physical recovery, many patients exhibit high levels of anxiety at the time of relocation from the ICU to a general ward (Barbetti and Choate, 2003; Chaboyer et al., 2005a; Cutler and Garner, 1995; Leith, 1998; McKinney and Melby, 2002). Over 30 years ago, the term transfer anxiety was used to describe the ''anxiety experienced by the individual when he/she moves from a familiar, somewhat secure environment to an environment that is unfamiliar'' (Roberts, 1976, p. 227–8) and today it is an accepted North American Nursing Diagnosis (Schweitzer and Ladwig, 2002). This definition is consistent with anxiety that has been termed state anxiety rather than trait anxiety. State anxiety is described as how an individual feels ''right now,'' at this present moment, rather than underlying ''trait'' anxiety, a relatively stable personality trait over time.

Transfer anxiety is a transcultural phenomenon that can occur in all age groups and may also affect the person's family members and significant others (Chaboyer, 2006; Gustad et al., 2005; Leith, 1999). More specifically, families have been found to experience anxiety prior to, during and after the transfer from the ICU (Chaboyer et al., 2004; Leith, 1999). Although ICU admission of a relative is extremely stressful, the sense of security provided by ICU care is likely to be reassuring for families (Hupcey, 1999; McKinney and Melby, 2002; Mitchell et al., 2003). Families gain comfort and support from the information, contact and guidance provided by ICU staff (Chaboyer et al., 2005a; Hupcey, 1999; Mitchell et al., 2003). In contrast, transfer from the ICU to the general ward can be extremely anxiety provoking for family members leading to intense anxiety at the time of discharge (Mitchell et al., 2003).

Research demonstrates that several environmental and personal factors contribute to transfer anxiety (McKinney and Melby, 2002). For example, transfer anxiety has been associated with environmental factors, such as sudden transfer due to the need for an ICU bed (Cutler and Garner, 1995; Leith, 1999); lack of constant nurse presence (Chaboyer et al., 2005a; Leith, 1999); lack of monitoring equipment (Cutler and Garner, 1995); change in the environment (Chaboyer et al., 2005a; Cutler and Garner, 1995; McKinney and Melby, 2002); and the lack of predictability in the new environment (Chaboyer et al., 2005a; Cutler and Garner, 1995). Other factors found to contribute to transfer anxiety have included lack of information (Burr, 1998; Chaboyer et al., 2005a, 2005b; Cutler and Garner, 1995; Hall-Smith et al., 1997; Leith, 1999); lack of preparation (Chaboyer et al., 2005a; Cutler and Garner, 1995); and concerns regarding lack of intensive nursing care (Chaboyer et al., 2005a; Leith, 1999; McKinney and Melby, 2002).

To complicate this anxiety, transfer to the ward sometimes occurs so quickly that patients and their families receive little preparation about what to expect in terms of nursing care, unit routine, orientation to the nurse call system, or bathroom facilities (Chaboyer, 2006; Cutler and Garner, 1995; Leith, 1999; Maillet et al., 1993). After one-on-one nursing care in the ICU, patients and their families may feel rejected and abandoned at discharge (Chaboyer et al., 2005a; McKinney and Melby, 2002). They are frequently so anxious about being left alone that they display dependency behaviour (McKinney and Melby, 2002). Similarly, a heightened level of anxiety in family members is associated with repeated questioning of staff (Mitchell et al., 2003). Ironically, while these behaviours may temporarily reduce their anxiety, it constrains the opportunity for the establishment of a therapeutic relationships with nursing staff. Dependency behaviour can be ''terribly burdensome'' on nurses (Standberg, 2003) and can impact negatively on the development of positive therapeutic relationships (Hupcey, 1998).

Given the potential impact of transfer on the physical and psychological wellbeing of patients and their families, developing interventions to reduce anxiety is an important task. In some patient groups, such as those undergoing cardiac