Managing anxiety in ICU patients: the role of pre-operative information provision

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SUMMARY

- Hospital-induced patient anxiety and coping mechanisms are discussed
- The value of giving pre-operative information to reduce anxiety in elective admissions to intensive care unit is discussed
- Recommendations are given based on the literature evidence to aid service and practice development

Key words: Anxiety • Coping behaviour • Intensive care • Patient education • Pre-operative care

ABSTRACT

Local delivery of high-quality, evidence-based services is a key element in the current Government's agenda for the National Health Service, and the need for clinical staff to take part in reviewing the quality of services they provide and in planning ways of improving them has never had a higher profile. Health care professionals are being encouraged to keep patients informed about health care options; to explain and justify their decision making to patients; to address the views and expectations of patients; and to actively involve patients in decisions about their own care.

The value of giving pre-operative information to patients has been heavily debated in the literature, with many authors claiming that psychological preparation for an operation can help reduce hospital-induced anxiety. The benefits to patients and relatives of theatre nurses undertaking pre-operative visits, as a way of providing pre-operative information, have been documented and researched. However, relatively little consideration has been given to the value of intensive care unit (ICU) nurses undertaking pre-operative visits to patients who are 'booked in' to ICU following elective surgery.

A literature review was undertaken to answer the following question: 'Does pre-operative information provision by intensive care nurses have the potential to contribute to reducing anxiety in elective surgical admissions to intensive care?' Two key issues were explored: hospital-induced patient anxiety and pre-operative information provision. Having considered the available published literature and reflected upon it in relation to practice within one ICU, recommendations have been proposed.

Pre-operative information provision by ICU nurses can make a valuable contribution to reducing anxiety in elective surgical admissions to ICU. However, this should not be considered as the sole aim of pre-operative visits, for if done properly, it should also be good for the nurse–patient relationship, opening a gate for the delivery of planned, individualized nursing care. Nor should pre-operative visiting be the only activity undertaken to reduce patient anxiety. What is needed is a collaborative pre-operative information programme that involves the ICU staff, the ward staff, patients and their relatives as full partners. By effectively implementing such a programme, it is hoped that real improvements can be made to the delivery of patient-centred care.

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INTRODUCTION

The notion that being admitted to hospital, particularly for major surgery, can be a cause of significant anxiety for patients is neither new nor unexpected (Cochran, 1984). Following certain types of elective surgery, patients routinely spend the immediate post-operative period in the intensive care unit (ICU) to

allow intensive medical and nursing monitoring and management. Given that it has been suggested that many patients have found the ICU to be an especially 'alien' environment, it is not surprising to find that links have been made between admission to such an environment and exacerbations of existing anxieties that some patients suffer (Chew, 1986).

The need for nurses to become more patient-centred in their approach has become widely recognized, with the provision of patient information and education having become an increasingly important part of modern health care, with the need for people receiving treatment for health-related problems and their relatives being provided with information being more frequently asserted (Bannister, 2001). Indeed, it has been suggested that empowering patients in this manner actively encourages them to exert greater control over, and share greater responsibility for, their health care (World Congress of Pharmacy, 2000). The impact of pre-operative information provision on patients' anxiety has been heavily debated in the literature, with many authors claiming that psychological preparation for an operation may have a positive influence on the patient's post-operative condition (Cochran, 1984; Chew, 1986). The effects on patients of theatre nurses undertaking pre-operative visits, as a way of providing pre-operative information, have been documented and researched (Hayward, 1989; Booth, 1991). However, relatively little consideration has been given to the value of intensive care nurses undertaking pre-operative visits to patients who are 'booked in' to intensive care following elective surgery.

This article addresses the following question: 'Does pre-operative information provision by intensive care nurses have the potential to contribute to reducing anxiety in elective surgical admissions to ICU?' This will be addressed by exploring two key issues: hospital-induced patient anxiety and pre-operative information provision. After reviewing and critically analysing the published literature, recommendations will be proposed. During the review process, it became evident that there was a shortage of recent literature publications in this subject – this has been taken into account in the author's recommendations.

OVERVIEW OF ANXIETY IN HOSPITAL PATIENTS

Anxiety has been defined as 'fear of the unknown, as disproportionate to the threat involved, related to the future' (Wilson-Barnett, 1976). Anxiety is characterized by the individual's lack of ability to specify the source of the threat (May, 1977) and is often manifested by general restlessness, sleep disturbances and purposeless movements (Yocum, 1984).

Admission to hospital can provoke feelings of anxiety and stress in many patients, particularly in those who are about to undergo major surgery (Hugh-Jones and Tanser, 1964; Volicier, 1978). Patients facing surgery may express fears about pain, anaesthesia and of 'the unknown' (Carnevali, 1966). Pre-surgical anxiety can in turn have major implications for the recovery of patients, as it can cause physiological problems (e.g. elevated blood cortisol levels) leading to slower wound healing, a decreased immune response, an increased risk of infection and fluid and electrolyte imbalance (Boore, 1987). Pre-surgical anxiety can exacerbate the actual pain experienced postoperatively (Baylock, 1968) and significantly impair psychological well-being and cooperation with self-care activities (Kapnoullas, 1988). All of these can dramatically delay the recovery of surgical patients. In order for a nursing intervention to be therapeutic, the potential impact of such anxiety ought to be recognized; and in addition to the intervention being evidence-based, it ought to be informed by an understanding of the causes of anxiety (Swindale, 1989).

Several potential factors have been said to contribute to anxiety and stress in hospital patients (Carr and Powers, 1986; Dobree, 1989; Chandler, 1991):

- those related to illness, e.g. pain and discomfort, and uncertainty regarding progress and recovery;
- those related to hospitalization, e.g. the unfamiliar environment, unknown faces, loss of independence, loss of privacy and the potential threat to well-being.

ANXIETY IN ICU

As already stated, following certain types of major elective surgery, patients routinely spend the immediate post-operative period in the ICU, and these planned post-operative patients constitute a large percentage of intensive care patients. For many such patients, the ICU environment can be a 'wildly unfamiliar' one (Chew, 1986), depriving them of normal interactions and sensations while constantly bombarding them with strange sensory stimuli (Mackinnon-Kessler, 1983, as cited by Cochran and Ganong, 1989). This situation can exacerbate the feelings of anxiety that the patient may already be experiencing from the surgery (Kornfield, 1974) and, consequently, trigger psychological abnormalities collectively referred to as 'intensive care syndrome' (McKegney, 1966). 'Intensive care syndrome' is a phenomenon of altered mental function (e.g. confusion, disorientation and hallucinations) that occurs in some patients while in intensive care and resolves after transfer (Dyer, 1995).

Given the above, it is important that the occurrence of anxiety should be reduced or eliminated whenever

possible (Hudak and Gallo, 1994). Unfortunately, it is not usually possible or straightforward for the nurse (or anyone else) to simply eliminate the harmful stimuli that evoke anxiety; the focus should arguably be on helping patients to cope with stressful events (Wilson-Barnett, 1976). Coping has been described as the actions taken by an individual with a problem to bring about 'relief, reward, quiescence and equilibrium' (Weisman, 1979).

COPING MECHANISMS

A variety of coping mechanisms can be employed by patients admitted for surgery in an attempt to deal with their anxiety, e.g. discussing the situation with others, or directing attention elsewhere (Swindale, 1989). Although some of these strategies can be viewed as 'negative' (e.g. denial), it has been suggested that they can play a valuable, interim role, giving time to the patients to develop more sustainable means of addressing their anxiety problems (Swindale, 1989). However, if the patients rely on such negative coping strategies for a prolonged period, they can contribute to poor post-operative recovery for the patients, e.g. the patients are left to feel isolated and unprepared to the extent that their subsequent experience may prove to be so frightening that their recovery time is prolonged (Hewitt, 1979, Teasdale, 1987). An example of a 'positive' coping strategy is information seeking, which involves the patient trying to exactly find out what is more likely to happen and thereby be better prepared, more in control and less anxious (Summers, 1984; Krause, 1987). Indeed, the UK Government's report *Comprehensive Critical Care* (Department of Health, 2000) recommended that information on what to expect be provided to patients to help them manage possible distress and limit anxiety. In light of the above and the need to provide individualized patient-centred care, it is, therefore, important that the nurse support the patient's particular coping styles while promoting physiological and emotional stability; and that they employ interventions that give a greater sense of control to patients (Hudak and Gallo, 1994).

PRE-OPERATIVE INFORMATION PROVISION

Information provision has been highlighted as a particularly effective and appropriate approach to reducing the occurrence of anxiety and helping patients to cope with anxiety when it does occur (Boore, 1978). Patients that have been provided with information pre-operatively have been shown to experience less nausea and vomiting, have fewer post-operative complications, require less pain medication and have shorter hospital stays (Cupples, 1991; Martin, 1996). The nurse's responsibility in giving pre-operative information to reduce patient anxiety has been recognized as being compatible with other roles, such as being a provider of emotional support and an advisor (UKCC, 1986). As has been highlighted earlier, it has been suggested that a solid understanding on the part of the patient of their illness and treatment can reduce anxiety and aid recovery. Providing patients with full information about their treatment (and thereby supporting informed consent) can give many patients a much needed sense of control and security (Brewster, 1992).

The two most common ways of providing pre-operative information provision cited within the available literature are:

- verbally during a pre-operative visit;
- via the provision of written material.

VERBAL INFORMATION

Pre-operative visiting is a concept that has been around for over 20 years (Wicker, 1995), its primary intention being to minimize fear and anxiety by preparing patients for their admission to ICU through providing them with set information about the unit itself and the equipment used, as well as answering questions (Derham, 1991). In this way, it is hoped that the patient is appropriately informed of the various aspects of treatment leading to their operation; and there is evidence that patients who have received pre-operative visits are less likely to suffer from anxiety, pain and nausea, and that the patients were more mobile and were in hospital for shorter periods of time (Cupples, 1991; Martin, 1996). However, it has also been emphasized that such visits should be led by an experienced professional who has the necessary knowledge to address those fears that the patient may have (Thompson, 1990; Booth, 1991). In addition, it has been suggested that the provision of information should actually be a two-way process – both parties sharing, rather than one giving and the other receiving – so that the visit can benefit both the patient and the visiting nurse (Cheetham, 1993). Unfortunately, there appears to be little evidence readily available to suggest that pre-operative visiting is currently carried out as policy in National Health Service hospitals. Although this obviously does not mean that it does not actually happen in practice, it does raise doubts; and certainly, if it is being carried out, it is suggestive that ICU patients are neither receiving it as standard nor in a standardized manner (i.e. provision is inequitable).

WRITTEN INFORMATION

Research has also been undertaken that indicates that patients who have been provided with and have read written information pre-operatively can experience less anxiety, shorter hospital stays and a quicker recovery (Christopherson and Pfeiffer, 1980; Johnson, 1990). As stated by Glasper (1992), 'spoken messages quickly lose completeness and accuracy; facts are omitted, diluted, embellished or condensed'. Indeed, it has been suggested that patients who are anxious may retain only 30–40% of any verbal information that they receive (Summers, 1984). It is worth noting that Comprehensive Critical Care (Department of Health, 2000) recommended that in order to manage anxiety in a good manner in ICU patients, information on what to expect should be provided not just to patients but to their relatives as well. An additional benefit of providing written material is that it can also be a useful method of imparting information to the patient's family (particularly those who are not present during the pre-operative visit). However, it has been argued that rather than being given on its own, written material should be used to supplement and reinforce verbal information given during a pre-operative visit (Dobree, 1990; Hayes, 1990). Furthermore, it is imperative that thought is given to how material is presented – not only must it be accurate, but it must also be clear and comprehensible to its target audience (Serxner, 2000).

However, care must be taken when giving information in whatever form. As Coulter (1998) states, 'if patients are to be active participants in decisions about their care, the information they are given must accord with available evidence and be presented in a form that is acceptable and useful'. Several studies have highlighted that information given to hospital patients is frequently felt by the patient as being insufficient, contradictory and confusing (Cartwright, 1964; Houston, 1972; Ley, 1982). It has been argued that information provided pre-operatively should incorporate not only what health professionals think the patients should know but also what the patients themselves want to know, as it should not be presumed that these are the same (Brambilla, 1968; Meyer and Latz, 1979; Hayward, 1989). With specific reference to ICU, there is certainly work available that suggests that many patients have and would welcome appropriate pre-operative information that addresses their concerns (Wallace, 1985; Watts and Brooks, 1997). The fact that the environment can be so different from what patients are familiar with has been identified as an issue to address when providing pre-operative information, along with information about the plan of care, intravenous infusions and procedures (Grady *et al*., 1988; Derham, 1991). Owing to the discomfort and speech restrictions caused by a patient having an endotracheal tube *in situ* post-operatively, it has been suggested that providing information about this, ahead of time, may help reduce possible anxiety and frustration (McGaughey and Harrison, 1994a; Watts and Brooks, 1997). In other studies, patients have expressed their wish to be informed about probable length of stay, control of pain and nausea (Derham, 1991; Watts and Brooks, 1997).

HOW MUCH INFORMATION TO GIVE

Deciding just how much information to give to a patient poses another challenge, as it is clearly important to avoid provoking further anxiety by unnecessarily providing information that the patient may perceive as distressing (Cheetham, 1993). Indeed, a study by Langer *et al*. (1975) suggested that detailed information might increase the patient's awareness of pain, thus making them less effective at coping. A number of papers recommend that the type and amount of information provided to individual patients should be based both on the findings of research (e.g. into patients' recall of their ICU stay) and on the assessed needs of the individual (Derham, 1991; Cheetham, 1993; McGaughey and Harrison, 1994b; Watts and Brooks, 1997).

WHO SHOULD GIVE INFORMATION

Following admission, the patient undergoing major elective surgery becomes the centre of attention and can be given a large amount of information by different members of the health care team. Ward nurses, anaesthetists and surgeons are only some of the personnel involved, all of whom are in a position to provide information to the patient about their hospital stay and treatment (Cheetham, 1993; Dickson, 1989). Traditionally, the theatre nurse has visited the ward and given information to the patient pre-operatively; and indeed, many consider the theatre nurse to be the best person to give the information, given that they should be more aware of theatre procedures (Radcliffe, 1993). However, ward nurses can also have a pivotal role to play in providing pre-operative information, as they have more time to build up a relationship with their patient; hence the patient may feel more relaxed with them and be willing to discuss any anxieties that they may have (Radcliffe, 1993). It has also been suggested that a pre-operative visit by an anaesthetist could provide sufficient opportunity for information provision; and that pre-operative visiting might be a natural extension of the ICU nurse role (Cheetham, 1993). There is evidence to suggest that patients may prefer nurses to be the main information givers, as they perceive them to be less intimidating than the medical staff (Faulkner, 1984; Neill-Higgins,

1985). Although such a function certainly fits with the notion that communication is an imperative part of the nurse's role (Davis, 1982), given that much of the evidence for this was authored by nurses and published in nursing journals, the impartiality of this is admittedly open to debate. However, irrespective of who is communicating with the patient, a strong case can be made for their avoiding the use of jargon as much as possible (as it may confuse the patient and prevent them from asking questions) (Ley, 1988). Furthermore, whoever is providing such pre-operative information should have a good knowledge of the relevant operation and the associated aftercare to ensure that the information that the patient receives is accurate (Dickson, 1989). It is worth noting, though, that should it be the nurse doing this, they should try to avoid being drawn into the medical aspects of the patient's surgery (Bull, 1985); and that as the patient's advocate, it is their duty to communicate and discuss concerns and questions raised by the patient to the relevant colleague within the multidisciplinary team as and when it is appropriate (Cheetham, 1993).

WHEN IS THE BEST TIME TO GIVE INFORMATION

A number of studies have been carried out to identify the optimum time period for giving pre-operative information to the patient (Wallace, 1985; Lepczyk *et al*., 1990). Some have come to the conclusion that it makes very little difference whether patients receive information up to a week before surgery or just the day before (Christopherson and Pfeiffer, 1980; Lepczyk *et al*., 1990). Others have stated that an optimum time period does exist, while disagreeing on when that time is. For example, some studies have found that patients may benefit more from and appreciate information that has been provided as early as possible (as they have time to absorb the information) (Davis, 1982; Derham, 1991). On the other hand, work has been produced that states that the patient's recall of information was better if there was a shorter time span between the giving and recall of information; hence, information should be provided nearer to the time of operation (Reading, 1981, as cited by Cheetham, 1993). However, irrespective of when pre-operative information is provided, given that information recall itself may be adversely affected by anxiety, the circumstances and the manner in which it is imparted is arguably just as important (e.g. calmly reinforcing key information in a quiet location) (Janis, 1958; Meade, 1989).

RECOMMENDATIONS

Having reviewed the available literature, it is clear that, as with any area of investigation, there are a number of limitations that need to be borne in mind when considering their findings. In this instance, the main limitations are the shortage of recent research publications into modes of information delivery and the relative lack of published work concerning pre-operative information provision for ICU patients. Nonetheless, there is valuable evidence available, which is of relevance to the stated aim of this article: 'Does pre-operative information provision by intensive care nurses have the potential to contribute to reducing anxiety in elective surgical admissions to ICU?'

Essentially, it is clear from the literature reviewed that the provision of information to patients can help alleviate anxiety and manage distress, provided that it is provided in an appropriate format and manner. However, as has also been highlighted in this article, information given to hospital patients is often insufficient, contradictory and confusing. Given the multidisciplinary nature of the ICU environment (AHP & HCS advisory group, 2002), clearly, nurses cannot nor should not work in isolation if this matter is to be effectively addressed.

Based on the literature reviewed then, the following recommendations are submitted for consideration as an aid for service developments:

- Pre-operative information should be routinely provided to patients who require a period of ICU post-operatively.
- The type and amount of information provided to patients should be based both on the findings of research and on the assessed needs of the individual patient (including details about the clinical environment and the equipment commonly used).
- Whatever pre-operative information is provided, it should be repeated and reinforced by all those who are involved in providing care.
- Patients should have the option of receiving a pre-operative visit from an ICU nurse.
- When a pre-operative visit is undertaken, it should be structured with the verbal information provided, supplemented by the provision of written material.

Such written material should:

- only be given to a patient during the pre-operative visit;
- be presented in an easy to read and informal manner, avoiding as far as possible the use of medical terminology;
- encourage patients to ask questions;

- contain information that will also be of value to the patient's relatives (e.g. location of the unit, visiting hours and useful telephone numbers).
- Pre-operative visits should be undertaken at a time that is convenient to the patient, the ward staff and the ICU staff.
- Information exchanged between the patient and the ICU nurse during the visit should be documented and shared (as appropriate) with other members of the multidisciplinary health care team.

However, it is important for critical care professionals to consider other approaches to imparting pre-operative information, especially those utilizing information technology (e.g. CD-ROM and the Internet) (Baker, 2000). The Internet merits particular attention, both because of the scope that it offers patients and their families to access information and support (Jadad, 1999); and because of the enduring concerns about the large proportion of material that exists on the Web that is either inaccurate or misleading (Murray and Rizzolo, 1997). Although it is beyond the scope of this article to fully address the implications of the above, they clearly present challenges and opportunities for nurses in working with their patients to make best use of accurate and validated sources of information.

In addition, in order to ensure consistent quality, a minimum standard for pre-operative information provision ought to be established, enabling such activity to be subjected to appropriate and rigorous audit and contribute to the benchmarking process (as per the Essence of Care – Department of Health, 2001).

CONCLUSION

It is apparent from the literature reviewed that pre-operative information is unquestionably of value to patients facing surgery and a post-operative stay in intensive care, as it can help ease anxiety. Although further research would be very much welcomed, and, indeed, robust evaluation of initiatives is essential, there does seem to be a significant amount of evidence to suggest that the giving of pre-operative information through pre-operative visiting and providing written literature have many benefits for both patients and nurses. Taking everything into consideration, it would seem beneficial for intensive care nurses to extend their role into the pre-operative period by providing information to their patients. It appears that patients are not worried further by the often-disturbing information they receive but are, in fact, thankful for the chance to ascertain what will happen to them and have their questions answered. Clearly having identified the 'gaps' in the literature, there is a need for more good-quality research into pre-operative information provision, both in general and specific to ICU. If done properly, such a dialogue should be good for the nurse–patient relationship, opening a gate for the delivery of planned, individualized nursing care.

However, it is important to keep the value and impact of such a discrete intervention as a short conversation with a relative stranger within perspective. It may be better to approach the matter from a more inclusive and integrative perspective and consider the value and viability of some form of collaborative pre-operative information programme that involves all ICU staff, the ward staff, patients and their relatives as full partners. In order for such a programme to be successfully implemented, it needs to be fully researched and the literature evidence fully appraised. But, just as importantly, it needs to be approached in an open manner for all the benefits to be fully appreciated; and patients and their families need to be engaged effectively to ensure that the information provided addresses their concerns as well as the professionals' priorities. Only in this way can pre-operative informative provision make its necessary and worthy contribution to the quality of patient-centred care.

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