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Multidimensional approach to nurse client communication in two Malaysian intensive care units

Faridah Hashim
Edith Cowan University

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Multidimensional approach to Nurse Client Communication in Two Malaysian Intensive Care Units

By

Faridah Hashim

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School of Nursing, Midwifery and Postgraduate Medicine.
Faculty of Communications, Health and Science
Edith Cowan University
Churchlands, Western Australia

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Abstract

Communication among patients and nurses in the Intensive Care Unit (ICU) has received extensive attention in the nursing research literature. These studies have identified numerous factors both enhancing and impeding effective nurse client communication. Despite the extensive research attention paid to nurse client communication in an ICU setting, no studies can be located that take a multi-dimensional approach to exploring the factors serving to enhance or impede such nurse client communications.

The literature review searched from 1980 when the landmark study by Ashworth (1980) reported on nurse-patient communication in the ICU. Many studies followed on nursing communication in the ICU and reported similar factors impeding nurse-patient communication including the last reported study by Alasad and Ahmad (2005). For this project it is of particular interest to determine if the factors reported in settings outside Malaysia are of relevance for Malaysian ICU nursing practice.

Accordingly this study conducted an in-depth multi-dimensional exploration of nurse patient communications within two ICU settings. More specifically it explores communication barriers such as the impact of technology, ICU environment, patient's clinical status, socio-cultural factors, hierarchical status, level of staffing and the training and experiences of the ICU nurses.

The study took place in two ICUs of two public hospitals in Malaysia. Data were collected using both qualitative and quantitative methodologies. Qualitative data were collected using participant observation and in-depth interviews with clients and nurses. The patients were interviewed when they were transferred out to the ward and their condition stable. The family members were interviewed in the ICU while the patient was in the unit. The ICU milieu was observed for barriers to communication like noise and staff activities in the unit. Focus group interviews with nurses were conducted. Quantitative data include staff profiling, patient data, family members' data and environmental monitoring of the noise level.

Eight groups of nurses (a total of 40 nurses), 21 patients and 23 relatives were interviewed in Phase One and the participant observation period for this phase spanned

over four weeks or a total of 70 hours. Staff profiling data were obtained from 83 nurses. The noise level monitored ranged between 64 to 101.5 dB in the participating hospitals.

The findings identified the lack of communication among nurses in the two ICUs as reported by the nurses, patients and relatives. Nurses cited clinical status of the patients, staff workload, staff shortages, staff experiences, hierarchical status of staff and relatives and technology as contributing factors. Patients reported nurses were always too busy, while relatives reported nurses communicated poorly and did not give sufficient patient information to them. Most of the barriers identified were similarly reported in other studies, except that in this study ethnicity which was earlier thought to have impacted on communication was not an issue. Availability of family members and the fact that clients of all ethnic groups spoke the same language, Bahasa Malaysia, appeared to ameliorate this issue. The socio-cultural aspects related to the multi-ethnic population in Malaysia was not cited as an impediment to communication by the majority Malay nurses and the mixed ethnic group of Malays, Chinese and Indian patients.

The barriers that were amenable to change were incorporated into a teaching plan and nurses participating in the study attended the education module. An evaluation phase comprising observation and focus group interviews of nurses were conducted and there were some positive changes in the way nurses communicated with their clients. The evaluation phase comprised eighteen nurses who were observed and two focus group interviews (ten nurses). Nurses reported they were more aware of the clients need for communication and need constant reminders as they tend to forget communication when they are busy.

The findings from this study revealed the lack of communication by nurses as reported by nurses themselves, patients and relatives. The participant observation showed nurses communicated minimally and on occasions when they communicated, it was very brief and procedural. Nursing managers play an important role to continually remind their staff to communicate and evaluate the need for continuous communication education. Nursing educators need to offer communication modules to nurses at basic and post basic training and plan short courses from time to time for nurses to continually update their knowledge on communication.

Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

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CHAPTER ONE

Introduction

The progressive evolution of intensive care units (ICU) over the last 50 years has required nurses working in these areas to develop specialised clinical and technological skills to effectively meet the needs and demands of critically ill patients. Despite nurses acquiring a significant array of skills to deliver physical and physiological care, it has been suggested that the psychological care, particularly communication, has been neglected in favour of physiological patient needs (Turnock, 1989). In many cases this has lead to client dissatisfaction with the level of nurse patient relationship (Ashworth, 1980; Bergbom-Engberg & Haljamae, 1993; Borsig & Steinacker, 1982; Wojnicki-Johansson, 2001).

Communication is the most integral component of the nurse client relationship and contributes to quality nursing care and it is also critical to facilitating the bond of nurse patient relationship (Anthonypillai, 1993; Caris-Verhallen, 1999; Chant, 2002). Although this has been recognised as important, there have been studies that reported poor communication in critical care areas (Borsig & Steinacker, 1982; Salyer, 1985; Wojnicki-Johansson, 2001) as a result of many factors. Barriers to communication can be attributed to factors like technology, environment, clinical status of the patient, socio-cultural aspects, hierarchical status of staff, staffing levels and the levels of nurses' experience and training. These factors are now widely recognised as contributors to the poor nurse client relationship (Alasad & Ahmad, 2005; Ashworth, 1990; Bergbom-Engberg & Haljamae, 1993; Boi, 2000; Chant, 2002; Gelling, 1998; McCabe, 2004).

Most of the research on the nurse patient relationship in the ICU has been conducted from the perspective of Western nurse researchers. Accordingly, the researcher aims to explore the barriers to effective nurse patient communication existing in two ICU in Malaysia. In Malaysia, the lack of communication among nurses has been highlighted by the Minister of Health (J. M. Chua, 2000) and most recently by the deputy Health Minister (Bernama, 2004) in conjunction with the celebration of Nurses Day. The ICU is one of the specialties that has been recognised for its poor nurse patient communication (Kingsley, 1999; Thomas, 2003).

1.1 Background to the study

The research literature has consistently demonstrated that effective communication skills, such as empathy, touch, comforting and supporting are crucial when caring for critically ill patients. For example studies by Ashworth (1980) and Elliott & Wright (1999) found that patients in intensive care units required more effective communication in terms of quality and quantity than patients on the general wards. This was due to the critical condition of the patients and the stress and anxiety experienced by the family members. However, a number of workplace factors like technology, environment, clinical status of the patient and experience of staff and training may also present obstacles/barriers to this communication process.

The actual and potential barriers to effective communication have been reported in a range of clinical studies (Albarran, 1991; Ashworth, 1980; Bergbom-Engberg & Haljamae, 1993; Wojnicki-Johansson, 2001). These studies highlight numerous physical and psychological factors impeding effective communication between nurses and their clients. There are, however, problems with these studies in that they tend to focus only on single factors associated with nurse client communication. For example studies on sleep deprivation and its contribution to communication problems (Crotty, 1985; Fins & Solomon, 2001; Kloosterman, 1983) and language barriers impeding communication (Anthonypillai, 1993).

Changes in medical technology are another factor that may present barriers to communication. Sophisticated modern practices and appliances, like physiological monitors are increasingly being relied on to manage patients in ICUs. This means that much of the repetitive monitoring and treatment like infusing blood or drugs and blood pressure measurement that would have previously been carried out by a nurse are now delivered by high technology equipment thus diverting the nurse's attention away from the patient (Ashworth, 1990; Mann, 1992; Wilkinson, 1992). This can significantly impact on opportunities for effective nurse patient communication.

The environment itself may present barriers to nurse patient communication. The high noise level in the ICU has been shown to contribute to poor communication (A. Green, 1992; Heath, 1989). Exposure to continuously glaring lights add to the environmental disturbances (Briggs, 1991; Gelling, 1998; McIntosh, 1989; Prevost, 2001). The cumulative effect of continuous exposure to light may lead to sensory and sleep

deprivation which is a common problem in ICU (Blacher, 1997; Briggs, 1991; Dootson, 1990; Eisandrath, 1982; Gelling, 1998; Granberg-Axell, Bergbom-Engberg, & Lundberg, 2001). This eventually alters the mental status of patients and causes behavioural and physical manifestations like anxiety, apathy and fatigue that are likely to contribute to poor communication.

The clinical status of the patient may also impair communication. Nurses tend to communicate poorly with patients whose mental faculty is affected and or unresponsive (Heath, 1989). This may be due to sedative drugs that impair cognition. This situation is compounded if the patients also have their sight blurred or occluded by dressings or their hearing is impaired by dressings as a result of surgical procedures. In addition, inability to verbally communicate due to the presence of an endotracheal tube or tracheostomy tube or a disease process like Guillain Barre syndrome poses additional barriers to communication (Borsig & Steinacker, 1982; Hemsley, 2001). Nonverbal communication, like touch, can also be impeded due to restraints, the presence of monitoring and intravenous lines or blunted by the effects of analgesia and anaesthetics. Communication issues may be further complicated by previous unpleasant hospital experiences that lead to fear and anxiety. Alternatively, those patients with no previous hospital experiences to draw upon may also find communication difficult (Stanton, 1991).

Socio-cultural barriers such as language, age, life experience, social mores and different social status can influence communication patterns. This is especially so in a multicultural society like Malaysia where both the clients and nurses often come from different ethnic and linguistic groups. Malaysia is a melting pot for various ethnicities of which there are three dominant ethnic groups - Malays, Chinese and Indians. For the two states of East Malaysia (Sabah and Sarawak) the indigenous population have many tribes and together with the Malays, are considered the 'bumiputera' or the original population. The Malays and some indigenous groups are predominantly Muslim, while the minority Chinese and Indians embraced other religions such as Buddhism, Hinduism and Christianity (2001, Status Report).

Although Malay is the official language and most of the population are able to comprehend the language, there are those who may experience difficulty due to their advanced age or poor education. Meanings may be interpreted differently between

different cultures in the same population. As Tate (2003) notes, language differences create the most important obstacle in the provision of care to diverse cultures. This poses problems in the communication between nurses and patients. Such a language barrier may cause hesitancy and reluctance to communicate (Anthonypillai, 1993). Even among similar ethnicities, for example the Chinese, there are many different dialects spoken. When two different groups meet, communication most often occurs in Malay.

The presence of relatives or significant others in the ICU has been shown to have a positive effect on the patients. Malaysians of all ethnic groups value their kinship and demonstrate these strong family ties in times of sickness and ill events. Most times, hospital staff has difficulty in asking relatives to leave the ICU whenever a family member is admitted. Ashworth (1979) reports that the presence of relatives or significant others can positively influence the outcomes of the patient's illness. On the other hand, relatives looked to staff for support and hope for the patient's condition (Coulter, 1989).

Hierarchical status of staff existing between nurses and doctors may further contribute to poor communication (Oughtribridge, 1998). Nurses should be able to give information on the patient's general condition or the medication history or even the procedures that have been carried out. However, some doctors consider that to be beyond the nurses' role and reprimand them. This can result in nurses avoiding giving any information on the patient's condition and frequently referring them to the doctors. The relationship between a doctor and patient is often considered "unilateral" in that patients passively accept what is prescribed as they do not have the knowledge or confidence around medical issues to seek clarification when in doubt (Sahan, 2002).

Nurse staffing levels and the quality of their training have also been shown to impact on nurse client communication. During the 1980s major cost cutting in health services expenditure occurred in Britain and in an ICU this cost cutting often meant there were less qualified nurses employed to provide direct patient care for an increasing number of highly dependent patie   n environment where patients' physical and physiological needs take priority this may severely impact on nurse patient communication (Ashworth, 1990).

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Where there are low numbers of specialty trained nurses available to work in an ICU setting this may potentially affect communication In Malaysia, despite the growing demand, there continues to be a significant lack of trained ICU staff. Thus a large number of nurses working in the ICU may be inadequately trained and may lack the required communication skills needed in such a setting. A lack of knowledge and skills to deal with the high demands required of intensive care nursing may leave the untrained nurses unable to perform their care adequately (Bergbom-Engberg & Haljamae, 1993).

Although the nursing curriculum has provision for basic communication skills training, it is felt that this is not sufficient for nurses to acquire the communication skills needed for their role in the ICU (Ashworth, 1981). This has also been highlighted by other writers (Albarran, 1991; Ashworth, 1984; MacLeod Clark, 1985; Wojnicki-Johansson, 2001) and is attributed to a number of factors including lack of knowledge, poor role models in the workplace and work anxiety. These writers have advocated an increase in communication skills teaching in the nursing curricula. Therefore, if nurses have been well equipped with good communication skills through various means of teaching they may encounter less complaints of dissatisfaction from clients (Ashworth, 1984; Baker & Melby, 1996; Brereton, 1995).

As indicated, most of the research literature on nurse client communication has focused on discrete and narrow aspects of nurse client interactions (Fisher & Moxham, 1984; Hagland, 1995; Turnock, 1991). Despite the acute illness of the patients and technological demands of an ICU, little broad-based research has been conducted exploring the barriers to effective communication in this complex environment; this is especially true in Malaysia. A few studies (Ashworth, 1980, 1984; Scullion, 1994; Wojnicki-Johansson, 2001) have recommended ways to improve client communication through nursing education programs, but none have followed through the study to implement and evaluate an education program.

It is worth noting that much of the literature cited above is more than 20 years old, but their findings on poor communication continue to have relevance as noted in more recent studies (Alasad & Ahmad, 2005; Boi, 2000; McCabe 2004). Barriers to communication cited include the clinical status of the patients and the frustrations of

unilateral communication. Staff shortage has also been identified as another factor affecting communication by nurses.

It is proposed that a study be undertaken which will highlight the problems related to nurse client communication in the ICU setting and assess the effectiveness of a targeted education program. The findings will help contribute to the knowledge of Malaysian nurses on effective communication with clients. With this knowledge, post registration education for ICU nurses will better prepare nurses for their role in interacting with clients with confidence. This will also benefit nurses currently working in the ICU when they attend programs on communication as proposed.

1.2 Significance of the study

This study will take a multi-dimensional approach to explore the communication barriers existing in the ICU setting. The findings from this study will be prioritised and an educational program will be prepared for the ICU nurses. It will be then taught and evaluated for effectiveness. The program will incorporate components for effective nurse client communication to emphasise the importance of psychological care to the patients. Educating nurses to deliver effective communication to clients is crucial as nurses spend the most time of all care givers with the patient in ICU (Stanton, 1991; Turnock, 1989).

Also of significance is the setting of this study in Malaysia. The author was unable to identify any published studies on nurse patient communication conducted in a Malaysian ICU setting. This is despite the fact that Malaysia poses special socio-cultural challenges that can impact on effective nurse client communication. Furthermore, although Malaysia is fortunate to be equipped with the latest ICU technology, there is evidence from a Western researcher (Hagland, 1995) to suggest that the psychosocial aspects of nursing care may not be getting the priority they deserve. The multi-dimensional approach taken in this study will explore the communication needs of patients and their families within the Malaysian health care context.

A study by (Hafsteindottir, 1996) showed that when nurses interact with patients, they retain the patient's self self-esteem and reduce the dehumanising effect of the ICU on the patient. This positive reinforcement can impact on the patient's condition by possibly reducing the incidence of ICU psychosis. Delirium and disorientation are major

causes of ICU psychosis in patients to ICU (Granberg-Axell, Bergbom-Engberg, & Lundberg, 1996) which together with sleep deprivation and sensory deprivation may result in a state of apathy and fatigue which then impedes communication (Moore, 1989; Stanton, 1991).

Poor communication between the nurse and patient may affect the nurse's job satisfaction as a result of non-compliant patient behaviour when communication is uni-directional or misunderstood (Leathart, 1994). If nurses are made to realise the effect of frequently communicating even though the patient appears unconscious or unresponsive, it may reduce the perceived futility of communicating to an unresponsive patient (Fins & Solomon, 2001). There has been positive feedback from studies by Bergbom-Engberg, Hallenberg, Wickstrom, & Haljamae (1988) and Green (1996) that patients do recall their stay in the ICU. Subsequently this may lead to increased job satisfaction for nurses when they realise that communication contributed to the stabilisation of a patient's physiological condition and recollection of the ICU experiences (Borsig & Steinacker, 1982). This in turn may impact on the patient's stay in the ICU. With positive communication from nurses, it has been suggested by Ashworth (1979) that the patient's stay in ICU can be shorter and thus reduce the financial burden of ICU on the patient and community.

In short, the present study may be a turning point for nurses to acknowledge the need for skilled and effective communication to ICU patients in Malaysia. The potential benefits of the study include improved nurse client relationship, improved job satisfaction to nurses, enhanced client satisfaction, improved levels of client compliance, shorter hospital stay for patients and reduced health care costs.

1.3 Outline of Research Design

The study was conducted in three phases. Phase One had five data sources: the nurses employed in the two ICU where the study was conducted, the ICU milieu, the patient's family, the patients themselves and selected data from the patient's case notes.

Phase Two involved the preparation of an educational module informed by the findings from Phase One. This module incorporated those barriers of communication that are

amenable to change within a short educational program. The education module was then delivered to the ICU nurses.

Phase Three was an evaluation phase, where the researcher observed the nurses and ICU milieu, conducted a focus group interview with the nurses and asked them to answer a questionnaire. This was to evaluate and determine if any behavioural or attitudinal changes to communication had taken place following the education program.

1.4 Aim of the study

The aims of this study are threefold:

To take a multi-dimensional approach to exploring and describing the barriers to effective nurse client communication in an ICU setting.

To identify and prioritise areas that may improve nurse patient communication and the preparation of nurses working in ICU.

To use the findings from the study to inform the development of a nursing educational module aimed at improving the nurse client communication in ICU and evaluate the program.

1.5 Objectives

The objectives of the study are:-

- To determine the pattern of communication between patients and nurses in an ICU setting
- To investigate how ICU nurses perceive and meet the patient's communication needs
- To explore the communication experiences patients and families can recall when they were in the ICU
- To observe environmental factors which enhance or impede communication in ICU
- To assess and prioritise barriers to communication between ICU nurses and their patients

- To use the findings from the study to design an educational module for improving preparation of nurses to work in the ICU setting
- To evaluate the effectiveness of the education module

1.6 Research Questions

The research questions are:-

- What are the current patterns of communication in a multicultural ICU?
- What recollections do ICU patients have of their ICU experiences?
- What are the environmental factors that influence patient communication in an ICU?
- What communication related experiences do the family members have while visiting the patient in the ICU?
- What are the main factors which influence communication in a multicultural setting?
- What do nurses in ICU perceive the patient's communication needs to be?
- What strategies can be developed to improve nurse communication in ICU?
- What strategies do nurses use to meet patient's communication needs?
- To what extent does an education module improve nurses' knowledge?

1.7 Definition of terms

- Client – in this context this term means the patient and the family members who are receivers of care.
- Communication – described as allowing the transfer and exchange of information and understanding from one person to another through meaningful symbols. Communication takes many forms whether as verbal or non verbal (Hellreigel, Jackson, & Slocum, 1999).
- Environment – is the external conditions or surroundings of the patients and relatives experienced whilst in the Intensive Care Unit.
- Intensive care unit (ICU) – is a unit specially staffed and equipped, separate and self-contained section of a hospital for the management of patients with life-threatening or potentially life-threatening conditions (Faculty of Intensive Care, 1997).

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- Sensory deprivation - is a term used to describe the apathetic behaviour of a patient with other manifestations like delirium, confusion, anxiety, depression and audiovisual hallucinations (Easton & MacKenzie, 1988; McGuire, Basten, Ryan, & Gallagher, 2000). It is a cluster of psychiatric symptoms that are unique to ICU environment.
- Socio-cultural group - the cultural and/or religious group in which the respondents identify themselves. In the Malaysian context this broadly refers to Malays, Chinese and Indians.

In summary, this study takes a multi-dimensional approach to identify the potential barriers to effective nurse client communication. The findings from the study will be used to inform the development and evaluation of a nurse education program aimed at improving the quality of client communication in the ICU setting.

CHAPTER TWO

Literature review

Over the last 25 years many articles have been published on the communication difficulties facing nurses and their clients in ICU. Communication as an issue was subject to significant attention throughout the 1980s. Many studies identified the same factors contributing to poor communication up until the present day therefore the researcher felt it was justified to report these older studies as the originating source of data and findings. This literature review examine the body of knowledge on communication, nurse patient interaction, barriers to communication and the role of nurse education in improving communication; particularly in an intensive care setting.

As outlined earlier, the barriers to communication cover several elements: technology, environment, clinical status of the patient, socio-cultural groups, families or significant others, hierarchical status of staff, staffing, training and nurses' experience. Although each element will be discussed discretely, it is recognised that they are interrelated. The review concludes with a conceptual framework developed from the literature review.

In undertaking the review, the following databases have been searched CINAHL (Cumulative Index to Nursing and Allied Health Literatures, address www.cinahl.com), Medline (a medical database of the United States National Library of Medicine, address www.ncbi.nlm.gov/entrez/query) and Australian Medicus Index (a nursing medical database produced by National Library of Australia and New Zealand, address www.library.usyd.du.au/databases/nursing html). The Malaysian databases accessed were the University Malaya library and the Universiti Teknologi MARA library.

Last search update was on the 30 May 2006. The review is also supported by key university library texts and journals. The search terms used for the review included: nurse patient interaction in ICU, communication in ICU, ICU psychosis, patients on ventilator, verbal and non-verbal communication, inter-cultural communication and communication with unconscious patients and intensive care nursing in Malaysia.

2.1 Communication in Nursing

Communication has been described as being an integral component of daily activities. As part of routine living, it is important for the exchange of information and emotional support (Elliott & Wright, 1999). In nursing good communication has been emphasised as of paramount importance between nurses, other health professionals, patients and families or significant others for the delivery of quality holistic care (Anthonypillai, 1993; Chant, 2002; Llenore & Ogle, 1999). Research from as early as the 1980s has emphasised the need for good communication in nursing (Albarran, 1991; Marrow, 1996; McCabe, 2004; Wojnicki-Johansson, 2001). In particular these recommendations include:

- The introduction of communication skills in the basic nursing curriculum and post basic program (Ashworth, 1980; Crotty, 1985)
- The improvement of the quality of communication interactions. This was because nurses were said to be competent in communication skills but lacking in the interaction skills (Turnock, 1989)
- The proper use of communication aids such as pen and paper, alphabet boards and mouthing words (Borsig & Steinacker, 1982; Etchels, 2003) and
- Training of communication using the solution-focused communication training approach (Bowles, 2001)

The recommendations proposed by the first three researchers could be adapted to the Malaysian nursing curriculum and in particular to the ICU. Good quality communication in nursing meets several patient needs including social interaction, information, reassurance, discussion of feelings, advice and counselling (Albarran, 1991; MacLeod Clark, 1985). Despite this Turnock (1989) found that most communication in nursing has been described as 'nurse-centred'. That is, pertaining to tasks that lacked the above mentioned needs of communication. This finding is also supported by Ashworth (1980) who found that 71% of nurse patient communications were task-related consisting of short-term information, commands or questions which was also reported in a more recent study (McCabe, 2004). The study by McCabe (2004) was conducted in a general hospital in Ireland where the writer interviewed eight patients who had stayed in the hospital for a minimum of four days. Although the study sample was small and limited in its generalisability, it shows patients reported that nurses were too busy performing tasks to pay any attention to communication. The task-centred nursing approach is very much practiced even in recent times and patients from

this study even likened the nurses as mere 'workers' and not as professionals. Another patient had the impression that the nurses were supposed to carry out the doctor's orders only, so was not perturbed that the nurses did not communicate to them (McCabe, 2004). This was despite the recommendations of many earlier studies to improve communication through training and a patient-centred approach (McCabe, 2004) including the landmark study by Ashworth (1980). Another study (Salyer, 1985) found that nurses observe a period of silence while performing procedures on patients. All these findings demonstrate that nurses fail to recognise the need for communication by patients.

MacLeod Clark (1985) reported that an array of factors contributed to poor communication in nursing. They are lack of time, lack of knowledge and experience, lack of communication skills, individual differences, anxiety, and fear of involvement and expectation of patients. Another view supported the notion that poor communication among nurses was the result of organisational culture either associated with workplace policies or ward culture (Chant, 2002). It was reported that traditionally workplace policies imposed rituals and rules meant to be adhered to by nurses and communication with patients was something luxurious while the ward culture emphasised technical tasks over caring (Chant, 2002). Another view was that nurses were not encouraged to establish a relationship with patients so as to protect the nurses from emotional involvement with the patient and avoid stress (Albarran, 1991; Bergbom-Engberg & Haljamae, 1993; McCabe, 2004). These discussions exhibited the many aspects of poor communication in nursing that despite various efforts to improve have failed to address the problem adequately and successfully.

Non-verbal means are another important dimension of communication in nursing and touch is especially mentioned and advocated (Cox & Hayes, 1999; Hagland, 1995; Verity, 1996). Touch has been recognised as a valuable way of communicating care in nursing situations universally (L. Green, 1994; Schoenhofer, 1989). There were three types of touch: comforting touch, task touch and affectionate touch as identified by (Verity, 1996). She proposed that nurses incorporate comforting and affectionate touch along with task touch to make touch more meaningful as a communication mode. A comforting touch is aimed at helping the patient to cope with his/her illness and involves empathy; task touch is related to the nursing procedures performed and affectionate touch is used from one person to another in the hope of transmitting

feelings of recognition, concern, acceptance and caring (Verity, 1996). Task touch is the most used in nursing (Estabrooks, 1989).

Despite the recommendations to incorporate touch as a form of communication, it should be approached with caution particularly with cultures which dislike close proximity such as those from Northern Europe (Feltham, 1991) or Muslims (Mohamed Hatta, 1999). For Muslims touch between males and females is prohibited, but under extreme circumstances like between patients and carers, it is allowed (Mohamed Hatta, 1999). In Islam, the first Muslim nurse was said to have used touch as part of her nursing activities in the care of injured soldiers (Kasule, 1998). A study by Bergbom-Engberg & Haljamae (1993) noted that nurses found it easier to touch older patients and dying patients rather than patients of their own age.

Communicating through informal or purposeful touching has been shown to have a number of benefits for a wide range of clinical conditions. For example, it helps to reduce the anxiety level of hospitalised general and intensive care patients (Cox & Hayes, 1999; Stanton, 1991). When touch is used on sedated intensive care patients it helps to convey feelings of concern, caring and genuineness (Schoenhofer, 1989).

Another form of touch which has gained some interest is therapeutic touch. It is a form of non -pharmacological therapeutic intervention (Cox & Hayes, 1999). This touch is postulated to facilitate healing through the use of energy fields present in human and other energy fields (Cox & Hayes, 1999) and administration involves putting the healer's hands on the patient and feeling sensations like warmth, coolness or tingling. The purported benefits of this touch include reduced anxiety levels in hospitalised patients, reduced in pain perception post operatively, reduced tension headache and reduced stress (Meehan, 1991). To perform this procedure training is required. The purpose of mentioning this alternative treatment is to highlight the difference between the non-therapeutic touch mentioned earlier.

Besides touch other means of nonverbal communication in patient care include the use of proximity, body position, eye contact and facial expressions (Albarran, 1991). Albarran (1991) also stressed that the ICU nurse must be familiar with the different techniques of communication and adopt the one that is most suited to the patient's need at that time.

Despite the necessity for good communication, it has been disputed that communication between nurses and patients has ever been totally successful given the high level of client and health care professional dissatisfaction reported (Alasad & Ahmad, 2005; Albarran, 1991; Ashworth, 1980; Borsig & Steinacker, 1982; Chant, 2002; McCabe, 2004; Turnock, 1991; Wojnicki-Johansson, 2001). These researchers found that even though nurses were aware of the importance of communication, their practice did not always demonstrate this awareness. The report by Clark (1985) concurred with this view when she described that poor communication was caused by the lack of time, knowledge and nursing experience. The study by McCabe (2004) showed that nurses still placed importance on the task-related care as compared to psychological care. When patients were interviewed they complained that nurses did not communicate with them. More recent nursing literature suggests that nurse patient communication problems still persist, particularly in acute settings like ICU (Bergbom-Engberg & Haljamae, 1993; Laitinen, 1996; Llenore & Ogle, 1999; McCabe, 2004; Verity, 1996; Wojnicki-Johansson, 2001). Chant (2002)) noted that patients complained about the lack of communication and the findings reflected those reported by Ashworth (1980) nearly a quarter of a century earlier.

2.2 Communication in Intensive Care

The ICU is an area where patients are totally dependent on nurses for their care and wellbeing (Turnock, 1991). The very nature of nursing in such units requires nurses to be vigilant in their physiological and psychological care as most patients are sedated or even paralysed to manage their compromised neurological, cardio-respiratory and hemodynamic function. The symbiotic relationship of physiological and psychological care must always be on the nurses' mind in the delivery of efficient nursing care (Sole, Lamborn, & Hartshorn, 2001). The integral component of psychological care is communication. Lack of communication has been linked to sensory deprivation, a condition caused by a reduction or increase in the variety of sensory input from the environment (Stanton, 1991). According to Stanton (1991) ICU has become a place where there is extensive use of sophisticated and specialised equipment and a patient may have as many as four of these monitors or devices attached to them. Patients heard the various sounds emitted by each machines but were unable to ascertain which sounds came from his/her machines. This can eventually lead to patient frustration and psychological withdrawal (Chew, 1986; Dyer, 1995b; Gelling, 1998). Nurses in the ICU

must have effective communication habits because it is through nurses that patients receive and organise most information from the outside world (Ashworth, 1980).

Most communication is a two way process. In an ICU this is often not the case because patients are often intubated, tracheostomised and/or sedated (Turnock, 1991). Turnock's (1991) small scale study reported similar findings to an earlier study conducted by Ashworth (1980). These studies found that nurses were uncomfortable communicating with intubated or sedated patients due to the unconscious state. Rather, they preferred to give physical and physiological care due to the patient's unstable condition. Other researchers (Albarran, 1991; Borsig & Steinacker, 1982; McCabe, 2004) also reported ICU nurses gave greater precedence to the physical care rather than psychological care. In the study by McCabe (2004), all the eight patients interviewed commented on the task oriented care provided by nurses and the lack of communication. One of the patients reported that he would have been satisfied if the nurse just asked him how he was that day (McCabe, 2004). Another patient reported that the nurse attended to him to take his blood pressure but did not say a word. Although the sample was small, the findings were consistent and similar to earlier studies by Ashworth (1980) and Turnock (1991).

In another recent study (Alasad & Ahmad, 2005) the reason cited for poor communication was frustration communicating in a unidirectional mode thus not being able to discuss with the patient their care and the patient's condition. Unlike other studies (Ashworth, 1980; Borsig & Steineker 1985) which reported nurses prefer conscious patients so they can communicate more to them, in this study the nurses preferred caring for sedated and unconscious patients so that they were not compelled to talk to them. A conscious patient can sometimes delay what the nurse is doing if they start asking questions or talk irrationally, reported two nurses with more than 12 years experience (Alasad & Ahmad, 2005).

Although unidirectional communication occurs between nurses and unconscious or unresponsive patients, positive effects of communicating with such patients have been reported. The sound of familiar voices can improve the patient's sensory input (Ashworth, 1980) that may reduce the social isolation felt by patients (Dyer, 1995b) and may result in shorter recovery time (Ashworth, 1980; Weich, 1992). A study by Weich (1992) on the effects of verbal and nonverbal communication on unconscious patients

found that patients responded to the verbal communication by a reduction in their intracranial p̲   res (ICP) and heart rates when nurses spoke to them. In another study (Johnson, Omery, & Nikas, 1989) the researchers also investigated the effects of two types of conversation on intracranial pressure measurements. Type 1 conversation consisted of the patient's actual condition while Type 2 conversation was on matters not related to the patient. The findings showed that in Type 1 conversation, the patients showed an increase in their ICP measurements compared to Type 2 conversation. This has implication for nursing, that patients do hear what was communicated and the content of communication may precipitate feelings of anxiety and stress or positive feelings depending on the communication content (Johnson et al., 1989).

The importance of verbal communication in ICU was established in a landmark study by Ashworth (1980) where she reported a possible link between intensive care syndrome and the lack of verbal communication. In the study, which was conducted over five ICU, Ashworth (1980) interviewed patients post ICU care and reported that patients complained about the lack of information and explanation by nurses on the discomforts and pain they experienced. When patients tried to communicate their problems through nonverbal cues like moving their hands to the part of body causing the discomfort, nurses dismissed it as an attempt by the patient to remove the tube that was in place and therefore restrained their hands. The frustrations the patients had at not being able to express their concern was often compounded by the environmental factors like noise, flashing lights and the lack of peace and sleep in the unit. The cumulative effect of these eventually leads to experiences of illusions, nightmares and dreams as mentioned by patients. These symptoms were consistent with presentation of the ICU syndrome (Dyer, 1996; Fisher & Moxham, 1984). As recently as 1999, (Elliott & Wright, 1999) found that communication conducted as a preoperative preparation prior to admission to intensive care resulted in reduced post-operative complications such as delirium and pain. This was believed to be due to the patient's better understanding of what was entailed before, during and after the surgical procedure.

There is considerable literature citing patient's communication experiences in the ICU which were not favourable (Bergbom-Engberg & Haljamae, 1993; McCabe, 2004; Wojnicki-Johansson, 2001). Among the experiences patients reported were the lack of communication by nurses and the emphasis placed on technical care. The presence of endotracheal tube and tracheostomy impede the communication activity, but does not

mean these patients cannot and will not communicate, they hoped nurses would find other means to communicate to them (Heath, 1989). Patients have expressed the concern that they want nurses to talk to them as it helps allay their fears and anxiety and makes them feel safe (Hupcey, 2000). They want nurses to inform them of their condition, what is planned and reassure them (Hupcey, 2001). The findings of McCabe shows patients in recent times reported compounding factors affecting communication that are similar to those described in the 1980s. These factors were lack of time and nurses too busy to communicate. The common trend in these studies highlights the need for effective communication among patients in ICU.

There were other factors associated with poor communication by ICU nurses. The lack of time to communicate was a factor cited by nurses who cared for post-operative patients as a result of the many nursing tasks they need to perform (Stovsky, Rudy, & Dragonette, 1988). Work overload accompanied by stress was reported by (Bergbom-Engberg & Haljamae, 1993) as a cause for lack of communication. On the other hand, nurses cited the patient's ability to respond to communication and the patient's clinical status as impacting on their communications with patients. When a patient is critically ill, the priorities were often on the physical and physiological care rather than on psychological care (Albarran, 1991; Hagland, 1995).

Nurses in the ICU must have effective communication habits because it is through nurses that ICU patients receive and organise most information from the outside world (Ashworth, 1980). To communicate effectively in the ICU a number of barriers need to be overcome to deliver verbal or nonverbal communication. These barriers require consideration if patients and family are to participate with the nurses in ensuring the best conditions for recovery from ill-health.

2.3 Barriers to Communication

The studies outlined above have mainly focused on the general aspects of nurse patient communication. There are however, a number of specific barriers to communication reported in the literature. These include technology, environment, clinical status of the patient, socio-cultural aspects, hierarchical status of staff, family or significant others and the levels of training and experience of staff.

Technology

The ICU is characterised by high technology equipment necessary to accommodate the demands of critically ill patients. The advent of modern equipment and technological advances have changed the approach to nursing care where it can take over some of the nursing functions which once require the nurses' diligence like performing haemodynamic monitoring, drug infusion and parenteral nutrition. This has been viewed as having a positive and negative impact on nurse patient communication. The positive effect of technology is the knowledge and advancement of skills that improves the effectiveness of care (Barnard, 2000). It has enabled the nurse to perform other physical care on the patient while the technology delivers physiological care such as ventilation and hemodynamic monitoring of vital signs (Wilkinson, 1992). It also assists with the recording of vital information and knowledge about the patient including laboratory results and blood gas analysis (Mann, 1992).

The negative implications of technology have been associated with staff employment (Ashworth, 1990) and personal relations (Barnard, 2000). The implication to staff employment is the excuse by some resource managers regarding the recruitment of skilled staff. In some countries the resource managers perceive the use of high technology in areas like the ICU has taken over much of the nurses' important functions and whatever nursing tasks remain can be performed by nursing assistants while the machines will be looked after by technicians (Woodrow, 1997). This then becomes an excuse for the resource manager to reduce the employment of skilled ICU nurses over technicians and nursing assistants, thus cutting down on costs of employing skilled staff who are paid different rates (Ashworth, 1990).

Another implication of technology is related to nurse patient interaction. Technology has been cited as the cause for the lack of interpersonal relations between nurses and patients (Barnard, 2000). This was because nurses need time to spend on technology like attending to the alarms or when the technology fails. If they were at that moment with a patient trying to establish a rapport and an alarm goes off, it may mean they have to leave the patient to attend to the alarm and this leaves the patient feeling unappreciated (Barnard, 2000). Further to the abovementioned implication of technology on communication, a nurse may need to juggle the priority of being a competent technician for the seriously ill patient on sophisticated machines or a humane caring nurse catering to the physiological needs of the patient (Turnock, 1991).

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The impact of technological concerns over psychological demands by nurses was also observed by Turnock (1991) who commented that nurses fail to recognise psychological problems or mood disturbances of intensive care unit patients as their main focus was on the medical technology. The focus of critical care nurses was said to be on the technical aspect of care where the concern was on the functioning of the machines in use rather than the potential effect of the machine on patients. This was seen as taking staff attention away from the patient (Ashworth, 1990) thus reducing the time available for psychosocial care like communication (Albarran, 1991; Baker & Melby, 1996; McCabe, 2004; Salyer, 1985; Wojnicki-Johansson, 2001). An example was reported in the Coronary care unit (Ashworth, 1984), where patients reported nurses gave inadequate communication and failed to reassure the patient when monitor alarms went off. Wojnicki-Johansson (2001) also reported that patients on ventilator treatment complained about a lack of communication by nurses while they attended to the machines, while (Barnard, 2000) reported it was the nurses themselves who felt the technologies took much of their nursing time and reduced their interpersonal relations with patients. Nurses who reportedly spent too much time on technology were those with minimal experience, usually below five years or had not attended ICU training (Mann, 1992; (Bergbom-Engberg & Haljamae, 1993). It was also reported that some nurses who were not confident with their communication skills resorted to paying more attention to the machines in use (MacLeod, 1985).

Family members were not precluded from the impact of technology. It has been reported that there were family members who would be more concerned with the readings on the monitoring devices than the actual condition of the patient and they were alarmed if there were changes in the monitor readings, alerting the nurse to attend to it (Thomas, 2003).

Environment

The ICU environment can also present a barrier to effective nurse patient communication. Among the identified environmental factors that contributed to this barrier were noise and lighting. For example Hagland (1995) suggested that patients who were continuously assaulted with monotonous noise in ICU, loss of diurnal pattern from continuous exposure to light and unfamiliar surroundings and sounds, should be compensated with effective nurse patient communication. This he said would help make

the patients understand the alien world around them and give meanings to all the unfamiliar sights and sounds.

Noise

The ICU has been reported as the noisiest setting in the hospital (Stephens, 1995; Thomas, 2003). On the other hand there were studies like Green (1996) and Chew (1986) who reported respectively that 65% and 84% of patients in the study considered ICU to be quiet. A few studies (Albarran, 1991; Borsig & Steinacker, 1982; Stephens, 1995) quoted noise in the ICU as a deterrent for effective communication. Albarran (1991) reported noise from machines and staff talking contributed to problems like sensory overload where patients showed symptoms including delusions and hallucinations which eventually decreased the ability to communicate (Stephens 1995) A few studies (Belitz, 1983; Briggs, 1991; Dyer, 1995b) noted that patients displayed signs of physical stress which may be caused by noises from the machines in use and from staff talking. This can wake patients and alter their sleep pattern. Persistent exposure to noise may possibly cause psychological and cardiovascular stress to patients and caregivers (Akhtar, 2000). The study on noise as a cause of sleep disruptions in ICU by Gabor et al. (2003) identified conversations and alarms as the most disruptive noise. This finding concurred with the findings of other studies (Gelling, 1998; Heath, 1989; Richards, 1988; Stephens, 1995).

Major sources of noise include monitoring devices used on critically ill patients, staff talking in loud voices and staff activities (Stephens, 1995). The effects of noise was described by patients in a study as making them feel abandoned and surrounded by machines with disturbing noise and blinking lights (Ramsey, 1986). Another study reported patients described themselves feeling like aliens being connected to peculiar machines and apparatus, defenceless and insecure (Granberg-Axell, Bergbom-Engberg, & Lundberg, 1999). In a study to reduce noise in an ICU in Liverpool Hospital, Australia, Stephens (1995) engaged staff, relatives and patients as participants to answer a questionnaire on the problem of noise in the ICU. Noise was categorised as environmental noise, outside noise and noise from personnel and equipment. It was reported that 79% of the participants believed the ICU was noisy. The majority of the participants were staff members.

Noise from the equipment in the ICU has been reported to be above the desired decibels permitted in any patient care environment. Noise has been measured in the ICU at 100.9 decibels as compared to the recommended 35 decibels necessary to promote rest and sleep and avoid the risk of sensory overload (Briggs, 1991). Kawada (1999) found that sleep disruption occurs at sound level of 45dBA and patients report poor sleep quality on noisy nights. Other physiological changes that can be associated with noise include startling the patient, damage to hearing, secretion of stress hormones, induced sensory disturbances and enhanced pain perception (Hilton, 1987).

Sleep deprivation

Sleep disruption deprives patients of the essential stages of sleep which are necessary for restoration of health (Krachman, D'Alonzo, & Criner, 1995). Apart from noise other related reasons for sleep deprivation included the patient's chronic underlying disease, medications used and the constant intensive monitoring and nursing procedures which are usually carried out on newly admitted patients and for the critically ill. Critically ill patients often have their sleep interrupted in an ICU and the cumulative effect leads to sleep deprivation. This eventually may promote delusions, delirium and fatigue which are associated with the early signs of ICU psychosis (Dyer, 1995a).

ICU patients reported feeling abandoned and surrounded by machines with disturbing noises and blinking lights (Ramsey, 1986). They felt they were strangers, aliens being connected to peculiar machines and apparatus and they felt defenceless and insecure (Granberg-Axell et al., 1999). These psychological insecurities and physiological disturbances prevent them from getting continuous sleep and presenting with sleep deprivation signs of apathy, irritability and anxiety.

Sensory deprivation

Patients in sensorial deprived conditions will demonstrate cognitive and perceptual alterations (Gammon, 1999) such as hallucinations, non-compliant behaviour, increased somnolence, restlessness and anxiety. Lack of communication has been linked to sensory deprivation, a condition caused by a reduction in the variety of sensory input (Stanton, 1991). This leads to the patient feeling frustrated with eventual psychological withdrawal (Dyer, 1995b).

Among the strategies advocated to improve the patient care environment is for nurses to help patients adjust their sensory and perceptual stimuli by explaining to them the meanings of the noise from the machines and by controlling sound which is crucial to patient and staff well-being (Dyson, 1999). Dimming the lights to depict diurnal pattern and reorientating them to their surroundings were also identified as strategies to overcome the environmental effects of the ICU (Verity, 1996).

It can be seen that several of the studies cited above are over a decade old. Recent years have witnessed a dramatic increase in the level of technology used in the ICUs. It is therefore possible that these technologies presented further barriers to effective nurse patient communication.

Clinical status of the patient

The patient's clinical status has been identified as a further factor influencing communication activity. As previously noted, many of the physical interventions and treatments necessary to manage the ICU patient preclude normal two-way communication. Almost all patients in the ICU are sedated, intubated or tracheostomised. Because of this Ashworth (1987) and Turnock (1991) reported communication with patients was considered unnecessary by nurses. Nurses reported feeling awkward talking to an unconscious patient (Turnock, 1991). In her landmark study of five ICU, Ashworth (1980) reported nurses felt that patients who could not communicate did not require any communication. It was also found in this study that nurses' ability to communicate with patients correlated positively with any efforts made by the patients to communicate with the nurses. Patients with severe Guillain Barre Syndrome requiring ICU care illustrate this point. These patients have lost the ability to use their muscles due to paralysis and the simple task of forming words or sounds is a struggle, if not impossible. If a nurse failed to recognise any cue for communication initiation like blinking of the eyes, this patient's need for communication would be unmet. This caused fear and frustration to these patients that led to increased anxiety and stress (Heath, 1989).

The clinical status of sedated patients who had to have their eyes taped to prevent corneal ulceration posed another barrier to communication (Borsig & Steinacker, 1982), although in current practice patients only have their eyes protected by eye shades and this too posed barrier to communication. They were often not addressed by the nurses

in the course of care as these patients provide little feedback to the nurses. Those with bandages to their ears due to surgery may have their hearing impaired and patients who have poor eyesight could not see the nurses to communicate with them (Albarran, 1991). It was also believed that nonverbal communication like touch was impeded by restraints in the form of invasive lines and the supine position assumed by many patients (Albarran, 1991).

More recent studies (Butler, 1995; Dyson, 1999) found little had changed when patients who were interviewed post discharge from ICU had attributed their delirious behaviour to the lack of communication. Patients interviewed post extubation also described there was lack of communication when they were intubated possibly due to their unresponsive state. This inability to communicate lead to feelings of insecurity, fear and anxiety and may end up in panic and agony (Bergbom-Engberg et al., 1988).

Sometimes when the patient's condition permits two-way communication, it has been reported that nurses found this daunting as there was a barrage of questions from the patients on their condition and treatment (Turnock, 1991) so much so that nurses avoided these patients.

Socio-cultural factors

Language barriers and other cultural differences have the potential to further limit communication for patients in ICU. Considering the obvious role language plays in communication, it is surprising there is little reported research on the impact of cultural and language barriers in Malaysian ICU nurse-patient interactions.

A small study by Anthonypillai (1993) demonstrated that non-English speaking patients in an English speaking country tend to 'lose out' by not receiving the necessary information and communication accorded to the English patients because of the language barrier. Another study (Danilowicx & Gabriel, 1971) found that non-English patients after post-cardiotomy, suffered higher incidences of ICU psychosis as a result of impairment to verbal communication in an English speaking ICU. Brigit (2001) also proposed nurses give some attention to patients with limited understanding of English in an English speaking environment to ensure they understood the information given. Patients who are unable to speak the local language may have this problem accentuated if the nurses fail to understand them and have to rely on the family members or

significant others who understand the language. This demonstrates why the presence of such family members is important in managing patients with limited skills in local language (Anthonypillai, 1993).

In a population where there exist different ethnic groups the possibility of nurses and patients encountering problems related to religion or cultural practice or belief can profoundly affect communication. In Malaysia, this problem may result from the lack of knowledge and experience of the different practices and beliefs of the cultural groups that make up the population and in turn affect the care given and received by both parties (Subramaniam, 2005). Cultural orientation within the same ethnic group and within the individual is affected by age, lived experience, social mores and different social status, coping mechanisms and personal philosophies which then impinge upon the personality presented by the nurses and client. Consequently, there existed differences in perceptions and intentions that led to feeling of dissatisfaction (Albarran, 1991).

Another socio-cultural factor that could pose communication problems is the different religious and cultural beliefs practiced by specific cultural groups that might cause misunderstanding between the nurses and clients. The majority of Malaysians are Malays and practice Islam which plays a significant role in their life including in sickness (Haque and Masuan, 2002). While the Malays were familiar with their religious and cultural practices little is commonly known about the practices of the Chinese and Indians. Therefore it maybe that the predominantly Malay nurses (Abdullah, 2004) in the public hospitals would not be able to assist relatives if they wish to combine their religious practices in the treatment of patients. The belief of traditional practitioners among Asians and the dependence on modern health care systems by Anglo-Americans was reported by Prevost (2001). The Anglo-Americans rely completely on modern medicine, while most Asians believe that integrating traditional/ cultural practices with modern medicine increases efficacy. Nurses with understanding of different cultural beliefs of their clients may avoid miscommunication and misunderstanding with family members who wanted to incorporate their traditional beliefs in the care of patients.

Distancing is another cultural orientation practised by Asians, where they not only distance themselves when talking, but also talk less. Malaysian women are still

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discriminated by their religion and culture where women are not expected to speak up when any person considered of a higher standing speaks to them (2001, Status Report). The distancing is prominent between males and females, and different social background and hierarchy. Female relatives do not speak to the doctors unless they were spoken to and nurses usually listen passively when a specialist gives instruction. This practice is observed among the older generation of relatives, who abide by a traditional approach of handing down social mores from one generation to the next. This practice limits communication between nurses and clients with different social backgrounds or genders who accept information given without any questions. Part of the cultural practice of the Asian ethnic groups prescribes the females to be of a lesser position in comparison to males thus the tendency for females to speak less in the presence of males (Subramaniam, 2005). This submissive female role is still widespread in Malaysia (Status Report, 2001).

Relatives or significant others

The presence of relatives or significant others has been cited as having a positive effect on patients (Bergbom-Engberg et al., 1988). Getting the support of relatives or significant others is one way of enhancing communication for patients in the ICU. The relatives of ICU patients in Malaysia are predominantly female due to their expected role in the family during sickness and they are constantly with the patient. Nurses sometimes have difficulty asking them to leave the patient's bedside when a procedure needs to be performed due to both the recognition of this role and the relatives concern for the patient. A key role of the female relative is the emotional and religious support they extend to the patients. They usually recite religious hymns or offer prayers (Culture of Malaysia, 2007).

Relatives who understand the alternative methods available to overcome communication barriers can assist patients in communicating the patient's needs to the nurse (Thomas, 2003). The presence of family members can alleviate the anxiety and fear experienced by the patients and give a feeling of security (Hafsteindottir, 1996). They should also be involved in the nursing management of patients. When relatives are involved with the care of patients, the emotional support instilled by family members to patients helps patients to feel safe and the touch technique is one way of communicating assurance and calmness (Hupcey, 2000).

Research has also focused on the length and frequency of visiting a relative in an ICU and its impact on communication. The practice of open visiting allows longer visitation time and relatives can stay longer to give emotional and psychological support to patients (Bergbom-Engberg et al., 1988). Visiting time should not be restricted but planned to meet the patient's requirement (Dyer, 1995b). It has been reported that patients remember family members who visited and talked to them when they were sedated and this gives them a sense of caring and support, keeping them orientated and make them less fearful of the strange environment (Hupcey, 2001). In this study (Hupcey, 2001), it was reported that the crucial aspect of visitation was not the frequency of visits or the numbers, but the quality of the interaction family members have with the patient. The feeling of having a close family member is sufficient to communicate their feelings and patients reported it calmed them to just observe their family visiting them (Holden, 2002).

Jamerson et.al (1996) investigated the experiences of families who had relatives in the ICU and found through focus group discussion, family members experienced uncertainty, emotional turmoil and stress. Family members proposed that nurses give information on a regular basis to help reduce their anxiety level and assist with patient communication.

It is imperative that communication needs of the family must be met in avoiding the adverse psychological effect of an ICU admission (Lange, 2001). Despite the reports on the advantages of having family members close to the patient, one research reported that the presence of anxious relatives in the patient's room can disrupt nurses from communicating with patients (Bergbom-Engberg & Haljamae, 1993). In Bergbom-Engberg and Haljamae's study the nurses reported they were uncomfortable communicating with patients whose worried and anxious family members were around.

Hierarchical status of staff

Another barrier to communication was related to the hierarchical nature of the staff in healthcare; particularly the doctors and nurses (Chant, 2002). The power of the medical profession over nurses is a common tradition in most English speaking country (Adamson, Kenny, & Wilson-Barnett, 1995) including Malaysia which was once colonised by Britain. Although the nurse-doctor relationship has improved in recent years, a study in the United Kingdom (Heenan, 1991) found that nurses remain

dissatisfied with their relationship with doctors. They claimed that doctors were more autonomous, their professional status was higher and the nurses communication with doctors were lacking as compared to the Australian nurses (Adamson et al., 1995). In the past doctors controlled nurses' training and nurses obeyed doctors without question. Although nurses have become more autonomous the perception that nurses remain the 'handmaiden' of doctors is still evident today (Oughtribridge, 1998; Snelgrove & Hughes, 2000). Nursing remained a sheltered profession in comparison to the more established medical profession, thus nurses faced greater challenges to initiate change like communicating as partners rather than subordinates (Oughtribridge, 1998). This affects the communication between doctors and nurses and patients In Malaysia, doctors, especially senior consultants, are highly regarded and they influence all decision-making roles and obedience is expected of all subordinates (Sahan, 2002). Patients, relatives and nurses dare not question any prescription of a senior doctor. Any meeting to see a doctor requested by a relative is usually referred to a junior doctor. A request to see a consultant is screened by the medical officer and it is usual for the medical officer to inform the relative of the outcome of the discussion with the consultant.

When nurses exert their position of power over patients, they do so by adopting certain strategies, such as limiting the information given to patients and family and controlling the interactions they have with the patients (Henderson, 2003). In the study by (Henderson, 2003) nurses reported they gave little information to patients as they (patients) were not medically oriented. In another study (Intensive Care Society, 1990) nurses reported that they were in control and did not encourage patients to ask questions. In limiting interactions with patients, most nurses were observed to interact with limited communication during physical care and the content of that communication was on the procedures, with nurses choosing to ask closed-ended questions (Henderson, 2003).

In reality doctors and nurses, especially in critical care settings, should work as partners for the patient's well being (Sweet & Norman, 1995). It was found that in larger hospitals the relationship between nurses and doctors was more tense as a result of work pressure and competition among the professionals which eventually impacted on patient communication. This is especially true when considering the information to be released to family members by nurses in the absence of a doctor would very much depend on

which doctor was responsible and his/her relationship with the nurses (Sweet & Norman, 1995). In reality most nurse-doctor relationships are those of an assistant role, undermining the authority of the nurse to communicate effectively with the patient on matters of condition and care (Woodrow, 1997).

Staffing, Training and Experience

Being a specialised unit in a hospital catering for critically ill patients ICU should be staffed by equally competent and skilled nurses who are adept at handling the technologies in the form of sophisticated machines (Dennerley, 1991). The (Intensive Care Society, 1990) has advised that 75% of nurses working in the ICU should be trained in the specialty. Yet, staffing in the ICU has been quite controversial for the following reasons.

Firstly, as mentioned earlier there is difficulty in recruiting suitably trained staff to the ICU and retaining the services of skilled and experienced staff due to the high levels of stress from the demands of patient and technological care (Atkinson, 1987). ICU nurses are confronted with the stress of handling sophisticated equipment and critical medical conditions of patients, including attending to anxious relatives. This makes recruitment of ICU staff difficult and retaining skilful staff a challenge as they choose to leave the unit due to physical and mental stress (Southgate, 1999).

Secondly, in the earlier discussion on technology it was reported that some human resource managers considered the costs of hiring qualified ICU nurses as high since they were graded and paid differently (Atkinson, 1987). In addition, Atkinson (1987) believed most of the nursing functions can be performed by less skilled nursing staff and complex machines. This eventually leads to the employment of technicians to manage the machines and nurses without any ICU training or experience to perform basic nursing care, but lacking specific knowledge in psychological care; particularly communication (Binnekade, 2003; Woodrow, 1997). The employment of inexperienced staff and those staff without ICU training in turn leads to burnout and the high attrition rate of ICU staff (Binnekade, 2003) leading to a shortage of staff. Shortage of nurses and increased patient admissions to the ICU has resulted in the lowering of nurse patient ratios from the proposed 1:1 (Intensive Care Society, 1999). This limits nurses' time to communicate due to the heavy workload and the many work functions, particularly when working with ventilated patients (Bergbom-Engberg & Haljamae, 1993). In the

reported study by Bergbom-Engberg & Haljamae (1993), nurses considered work overload and functions as the most important factor obstructing their communication activities with the patient.

Many of the work functions performed by nurses include clerical and non-nursing functions like cleaning bed spaces, filling medical requisitions and putting away stores (Harrison, 2002). This study by Harrison (2002) identified that nurses spend about 4% of timein non-nursing duties, 6% in patient-focused activity, 17% in clerical nursing duties, 24% in direct patient care activities, and 38% in patient assessment and observations of the patient's status on monitors. Another 10% was spent on non-clinical activity like paperwork, phone communications and obtaining supplies. Unlike the study y Ashworth (1980), nurses were reported to spend about 14% on their time communicating with patients. The Harrison (2002) study did not discriminate communication as a separate entity but one which was incorporated whenever nurses attended to patients. Accordingly, the findings must be treated with caution because Harrison's (2002) study assumed communication should take place at each interaction with the patient regardless of the patient condition and therefore the communication time could have been overestimated.

Nurses who lacked experience and training may also find dealing with patients and relatives a bewildering experience and may not be competent to deal with them (Holden, 2002; Southgate, 1999). In a related study by Bergbom-Engberg & Haljamae, (1993) nurses with less than five years experience were found not able to fulfil the role expected of them in the ICU. This included managing the stress and uncertainty associated with patient care. They felt the workload and the uncertainty of the patient's condition were a major hindrance to their work and communication as their concentration was on learning the technology of the machines.

By contrast, those nurses with more than five years experience appeared to be more attuned to the patient's psychological needs (Bergbom-Engberg & Haljamae, 1993). As these nurses were familiar with the machines and care of the patient, they could allocate more time in dealing with the psychological needs of the patient, such as communication. Likewise, nurses with ICU training have the preparation to usecommunication skills for the benefit of the patient besides being skilled at recognising the physical and physiological needs of the patient (Endacott, 1996).

Experience and training are vital for nurses to work in the ICU (Endacott, 1996) so they can handle the complex technology in use and render competent holistic care while at the same time come to terms with their own emotions and feelings.

The above mentioned facts on training and experience have implications for nursing education. The education of ICU nurses will not only prepare them for the contemporary nursing care and competency with technological advances but the emphasis should include the psychological care of which communication is vital.

2.4 Education on communication

It has been proposed that it is vital for education in communication to be incorporated in nursing education (Albarran, 1991; Ashworth, 1980, 1984; Baker & Melby, 1996; Scullion, 1994). Ashworth (1984) proposed three approaches that could be adopted to improve communication skills in nurses. These were planned education in developing knowledge and skills of communication; utilise research findings in practice; and on-going research in communication to improve current knowledge and techniques, including appraising their effects. Despite these proposals, communication problems with nursing remain an issue with continuing reports of poor communication practices by nurses in the ICU (Chant, 2002; Keatinge, 2002; McCabe, 2004; Wojnicki-Johansson. 2001). The study by McCabe (2004) discovered all the eight patients interviewed on their ICU experiences complained of lack of communication and information giving by nurses as the most significant problem.

Albarran (1991) highlighted the need for nurses to address the communication problem at the basic and post-basic level of training. He proposed the use of videotapes as being one useful method in educating nurses on communication. Scullion (1994) on the other hand proposed that nursing programs incorporate aspects of relating to another human in the curriculum so nurses can improve their communication skills to patients and relatives. In a more recent study (Chant et al, 2002) recommended that the emphasis on communication education should be twofold: improve the practice setting so as to be more conducive to communication, and encourage the use of research on communication.

2.5 Consequences of poor communication

There are several consequences associated with poor communication that may affect patients, families and nurses in an ICU setting.

Patients' dissatisfaction

In studies by Hafsteindottir (1996 and McCabe (2004) patients were asked about their experiences in the ICU. The most significant problem highlighted was the lack of and difficulty in communicating with nurses and family members. When patients could not communicate their feelings and fear due to the ventilator tubing or tracheostomy as well as being paralysed by their illness or drugs, they felt frustrated, exhausted and gave up their attempts at communicating which lead to apathy and passivity (Hafsteindottir, 1996).

Other studies also reported patients' feeling negative emotions, like discomfort, frustrations and fear (Bergbom-Engberg & Haljamae, 1988; Heath, 1989), panic and exasperation (Stovsky et al., 1988) and distress (Russell, 1999). Patients also complained they felt disturbed when nurses talked about a patient's condition at their bedside, even though it may not be them the nurses talked about (Heath, 1989).

The superficial and brief communications by nurses were often confined to communications relating to tasks. Such communications were perceived as controlling by patients and interpreted as a power relation (Russell, 1999; Wojnicki-Johansson, 2001). Patients interviewed by Wojnicki-Johanson (2001) confessed that although nurses were able to establish functional communication with them, they lacked disclosure of information on the patients' medical condition and treatment modules. A "functional communication" is where nurses use effective communication methods to relay messages to the patients. In the study by McCabe (2004), the most common complaint expressed by patients was that nurses merely attended to their physical care and neglected to communicate to them making them feel alienated. The study also reported that although the patients were not satisfied with the level of communication nurses practiced, they accepted the situation because they sensed the nurses were too busy to have time for communication.

Poor patient compliance

Poor patient compliance has been reported as a consequence of poor communication between nurses and patients. According to Dyer (1995a), patients who were unable to communicate with health staff reliably feel that they are being treated as an object or disease, which depersonalises them and they will comply poorly with the medical instructions concerning their condition. The use of jargon and complex medical terms may further cause misinterpretation of information leading to increase in fear and uncertainties in patients (Borsig & Steinacker, 1982). Failure of nurses to explain the nursing procedures, machines used and the sound of equipment may lead to patients not cooperating with treatments and technologies. Even when nurses attempt to communicate with patients, it is not always effective. Ineffective communication can result in the patients not having the ability to comprehend the nurses' instructions when delivering care.

Relatives' dissatisfaction

When a patient is admitted to the ICU, the stress is felt by family members too (Lee and Lau, 2003). Many studies have been conducted to explore the needs of family members (Azoulay, 2002; Coulter, 1989; Fins & Solomon, 2001; Hickey, 1990; Jamerson et al., 1996; Lee & Lau, 2003; Leske, 1986; Quinn, Redmond, & Begley, 1996). The studies have identified that the most crucial needs lacked by the families were information on the patients' condition and diagnosis. Families expected the doctors to explain the patient's diagnosis, prognosis and medical plan (Azoulay, 2002) whereas the nurses were expected to continuously give information on the patient's condition and progress (Coulter, 1989; Hickey, 1990; Lee & Lau, 2003). Relatives find communicating verbally with intubated patients a challenge and when they are not able to establish a two-way communication mode, relatives will seek out the nurses for assistance for information.

There were not many studies that reported families expressing dissatisfaction of communication with nurses as the former feared retribution, but it was believed that this dissatisfaction was common (Scullion, 1993). Other studies have reported the need for information and communication as being the most important need of families with critically ill patients (Lee, 2003; Warren, 1994; Henneman, 1992). Families described being more stressed and anxious when a family member is admitted to ICU and they (families) looked for support by nurses to overcome their state of anxiety. These

findings support the notion that families do not receive adequate communication from nurses (Azoulay, 2000; Henneman, 1992; Hickey, 1990). The presence of relatives has also been shown to have a therapeutic effect on patients (Granberg-Axell et al., 2001).

Nurses' dissatisfaction

Nurses' dissatisfaction with communication is not only directed to themselves, but to the patients, the relatives and other healthcare professionals; especially the doctors (Beeby, 2000). For example, Beeby (2000) reported the frustrations of nurses for not being able to comprehend the sounds made by patients who were intubated; to communicate to the relatives when the patient's condition deteriorated; and the lack of team effort from the medical personnel, all of which affected nurses' care of the patient.

Nurses have to deal with the high levels of stress and workload in the ICU and for the inexperienced and the uninitiated nurse, most of their working time will be taken by learning the technologies and performing nursing tasks so that there was little time for communication (Albarran, 1991; Hagland, 1995). Further, the workplace policies and practice which are still traditionally bound by task-related care consistently consider talking to patients as time wasters (Chant et al, 2002).

One of the main sources of dissatisfaction the nurses encountered when communicating with the patients was the unidirectional communication when relating to unconscious and unresponsive patients (Caris-Verhallen, 1999). Borsig and Steinacker (1982) describe this as 'psychologically conditioned causes' where after a time when no communication occurs between the nurse and the patient due to absence of feedback, the nurse eventually ceases to communicate. In addition, the inability of a patient to speak and changes in physical appearance from the tubes and machines attached to different body parts no longer represents him/her as an individual. For most nurses this situation lessens their desire to communicate (Stanton, 1991).

Relatives who frequently ask questions were regarded as taking nurses' time away from the patients (Holden, 2002). In other instances, nurses were not confident to communicate with those of higher social class or different educational background (Chant et al, 2002). Nurses were also subjected to abusive language by relatives with up to 87% of the nurses reporting this misdemeanour (Lynch, 2003).

This is also seen when nurses interact with the specialist doctor where the power relation prevails. Many inexperienced nurses and hospital trained nurses perceived doctors as arrogant, autonomous and authoritative (Adamson et al., 1995).

Psychological disturbances

Lack of communication has been associated with the presence of a psychological problem known as ICU syndrome or ICU psychosis (Gelling, 1998). This is a well-documented problem resulting from a combination of psychological and physiological factors (Gelling, 1998; Shilo et al., 1999). Communication is one of the factors cited as contributing to this syndrome, as well as factors such as sleep deprivation, noise, separation and immobilisation (Black, McKenna, & Deeny, 1997; Gelling, 1998). The syndrome is defined as an altered emotional state occurring in a highly stressful environment like ICU which may manifest itself in various forms such as delirium, confusion, apathy, crazy dreams or unreal experiences (Gelling, 1998; Granberg-Axell et al., 1999). Earlier studies have reported that between 7%-72% of patients in ICU developed this syndrome (Weber, Oszko, Bolender, & Grysiak, 1985; Wilson, 1987) and although efforts have been made to address this problem recent studies still find the problem persisted although the number has reduced to between 12.5-38% of ICU patients (Dyson, 1999; Granberg-Axell et al., 2001; Hafsteindottir, 1996).

Communication is considered important for the patient's orientation to his surrounding and well-being as well as preventing ICU psychosis (Ashworth, 1980; Granberg-Axell et al., 2001; Hafsteindottir, 1996). It has been proposed that nurses initiate strategies to combat the environmental factors that contribute to ICU psychosis. Among the strategies proposed to reduce this syndrome were nurses instituting measures to reduce sleep deprivation, noise and separation/isolation and initiate communication (Gelling, 1998; Kurosawa, 1997; Topf, Bookman, & Arand, 1996) . These include prevention of sleep deprivation by planning and timing the nursing procedures to allow patients to have the full complement of sleep cycle; elimination of noise in the ICU from sources known like staff conversation or machines; encourage family members to visit to give emotional support and most importantly to communicate to the patients even though they were not responsive (Dyer, 1995b; Gelling, 1998; Granberg-Axell et al, 2001).

2.6 Summary and research implications of the Literature Review

The literature review has identified communication in nursing as being important for transfer of information and emotional support to patients and family in the ICU. It has also identified various factors contributing to the impediments of poor communication among nurses and clients in the ICU. These factors are related to technology, environment, clinical status of the patient, socio-cultural groups, significant others, hierarchical status of staff and staffing, training and experience. Although many of the references cited were more than 25 years old, much of the discussion on the barriers to communication remain pertinent to the current study. This includes the clinical status of the patient where the unilateral communication resulted from the unconscious state of the patient lead dissatisfaction to nurses. As for the conscious patients who are intubated, their communication is restricted with the presence of tube and likewise are frustrated with communication if they were not given the options of communication aids.

ICU nurses need to be competent in their communication skills to reduce and prevent the problems associated with poor communication. One of the prominent features of poor communication described by researchers is attributed to the psychological and physiological factors. To amend the situation it has been proposed that a psychological approach be incorporated in the teaching of communication in nursing education programs (Albarran, 1991; Baker & Melby, 1996; Bowles, 2001; Chant, 2002; Crotty, 1985; Leathart, 1994; McCabe, 2004; Scullion, 1994). Among the methods described by the literature are planned education in communication, use of research findings to improve knowledge and communication techniques and on-going research to improve communication. Russell (1999) suggested the use of feedback to nurses as a means of informing them of ways to improve their care and create awareness among nurses and help improve nurses' behaviour, particularly communication. A recommendation (Bowles, 2001) to implement short training on communication using the solution-focused communication training is worth considering if the organisation is convinced of its worth.

.Another area of concern which has had little consideration relates to the communication that occurs between the family members of the patient and nurses. In critical moments when the patient is unable to communicate freely with the nursing staff, the presence and attention given by the family members has been demonstrated to ease the anxiety

and fear of the patient (Scullion, 1994). Despite this little research attention has focused on the communication needs of the family and significant others in an ICU setting.

Finally, it has also been noted in the literature review that socio-cultural differences could hinder effective communication, particularly among different ethnic groups that do not possess a similar language or culture. This may become a major problem in the current globalization and migration of people from different ethnic backgrounds and societies. The few studies which described the language barriers have so far concentrated on patients and staff from the Anglo-European experience, but not in the Asian community. The literature on Asian studies so far has concentrated on one ethnic group namely the community of the country where the study was conducted, either in Hong Kong or Japan. This is particularly important in the context of Malaysia where three distinct socio-cultural and linguistic groups exist. Therefore there is a growing need for awareness among nurses to be knowledgeable in multicultural nursing to enable them to adequately deliver care to patients of different ethnic groups.

The literature review has described communication in nursing as being important for transfer of information and emotional support to patients and families in the ICU. It also identified various factors contributing to the impediments of poor communication among nurses and clients in the ICU. This study will focus on identifying the mentioned barriers in a Malaysian setting and seek to address these barriers if they are amenable to change through the development of an education program.

2.7 Conceptual Framework

The conceptual framework described below is in two parts. Part 1 (Fig 2.1) represents the exploratory part of the study which attempts to verify and prioritize barriers and consequences of communication between nurses with relatives and patients. Part 2 (Fig.2.2) shows the educational intervention based upon the findings derived from Part 1.

Figure 2.1 shows the relationship of the potential barriers to communication between nurses and client (patients and relatives). These potential barriers may contribute to consequences of poor communication and have effects on both nurses and clients. It is important to note that removing or reducing the barriers will also remove or reduce the negative consequences of poor communication, thus the bidirectional arrows between

the boxes. The outcomes of poor communication for relatives, patients and nurses are shown.

It can be seen from Figure 2.2 that the nurse plays a pivotal role in the delivery of communication to both the patient and family towards the patient's well being. The most important outcome is the improved satisfaction experienced by the relatives, followed by patients and nurses.

Potential Barriers

Staffing levels
Technology
Clinical status of the patient
Sociocultural groups and linguistic factors
Clinical nursing experience
Staff training
Hierarchical status of staff

Nurse communication with the patients

Nurse communication with relatives

Outcomes
Reluctance to communicate (Nurses, patients)
Sub-optimal clinical outcomes (patients)
Client dissatisfaction (patients, relatives)
Ineffective communication (nurses)
Anxiety and stress (patients , relatives)
Misunderstanding (relatives)
Reduced compliance (patients)

Figure 2.1. Conceptual Framework. Potential barriers and consequences of impaired communication in an ICU

Barriers Prioritised from Phase One

Phase Two   Phase Three

Clinical status of the patient

Staff workload

Staffing levels and experience

Hierarchical status of staff and relatives

Staff shortages

Development of a nurse education program derived from the findings in Phase 1

Implementation and evaluation of the education program aimed at improving the quality of nurse patient communication

Expected Outcomes.
Improved satisfaction for the families

Improved clinical outcomes and satisfaction for the patient

Improved communication skills on the part of the participating nurses

Figure 2.2. Conceptual Framework. Education improves nurse-client communication.

The literature review identified a number of communication barriers. Those barriers that directly relate to the conceptual framework are discussed below.

Staffing levels

Staffing and financial resource has a crucial role in determining the management and operation of an ICU. This includes the staff profile and numbers. The nurses' experience which includes education, work preparation and personal background implies the right combination of traits required to function in a stressful area like the ICU. Mature staff with specialised ICU preparation have more experience in caring for ICU patients and therefore may demonstrate more empathy in dealing with the critically ill patients taking into account a balanced approach to technology, physiological and psychological demands (Bergbom-Engberg & Haljamae, 1988).

Technology

Over-focusing on the technological aspect of care can also impact on nursing particularly in the ICU. Technology relates to the invasive and non-invasive monitoring devices attached to the patient to monitor the patient's well being (Albarran, 1991). Such monitoring equipment includes cannulas and computerised monitors. Life support devices include intubation, ventilation, renal replacement therapy and drug lines. Albarran (1991) wrote that these devices limit the ability of patient to communicate with the nurse and the nurse to the patient, particularly the inexperienced nurse. Technology can also present an overwhelming experience for the relatives when they become more concerned with the mechanism of the technology rather than the patients' needs, thus presenting a further barrier to communication.

Environment

Environmental factors have been considered as having a direct effect on the psychological status of the patient (Dyer, 1995a). The environmental aspect encompasses noise, lighting and restraint. Noises can be from the technological appliances in use, telephones or the conversations of staff. Bright lighting is essential in assessing the patients' physical well being but constant bright lights do not depict a diurnal pattern. Restraints may be in the form of invasive lines and inability to position the patient in the most comfortable position. These factors have been widely reported as barriers to communication in the ICU, and they also have a significant impact on the

clinical status of the patient(Albarran, 1991; Ashworth, 1980; Borsig & Steinacker, 1982; Stanton, 1991).

Clinical status of the patient

The clinical status of the patient includes the physiological disturbances leading to the ICU admission, the stress experienced, the coping mechanisms, pain, sight and hearing impairment, wounds, surgical interventions, medications and limited mobility (Ashworth, 1980; Fisher & Moxham, 1984). All these elements interfere with the normal communication process and possibly create sub-optimal clinical outcomes. Depending on the level of consciousness of patients the approach to communication by nurses and relatives may be substantially different.

Socio-cultural groups and linguistic factors

Another factor possibly influencing communication is the socio-cultural background of patients and relatives and linguistic factors. Socio-cultural aspects are associated with age, gender, language, family/significant others, nonverbal and verbal communication. Linguistic factors relate to the various languages of the different ethnic groups present in Malaysia. Previous studies conducted by Anthonypillai (1993 and Danilowicx and Gabriel (1971) have demonstrated that cultural barriers may create a communication disadvantage to patients through language difficulties. In addition, the role of family members/significant others, who in some socio-cultural beliefs play a particularly strong role in enhancing or as a barrier to communication between nurses and patients (Hafsteindottir, 1996).

Other factors that may contribute to the poor communication skills of nurses may be their different cultural and ethnic background, personal differences and perceptions and the lack of confidence to communicate. The latter may be due to lack of knowledge or minimal exposure on the subject of communication in the nursing curriculum (Albarran, 1991; Ashworth, 1984; Scullion, 1994). Male gender dominance is prevalent in Malaysia and decisions pertaining to informed consent and treatment modality are usually discussed by the male relatives and medical officer (Sahan, 2002). Nurses' role have been to assist in arranging an appointment for the discussion. Nurses were predominantly female and this subservient role exists from their family education where the importance of age, gender and position hierarchy was inculcated in their upbringing (Culture of Malaysia, 2007).

Significant others

An area which has been given little attention is the role of significant others or relatives in communication with nurses and patients. Family members in Malaysia play a crucial role in the transfer of information, support, conveying feelings like reassurance and comfort and emotion to patients and the ICU staff. When patients are unable to communicate freely, the attention and communication of nurses to the significant others help alleviate the fear and anxiety felt by the significant others. This in turn will be transferred to the patient when the significant others communicate with them. Significant others or relatives must be available and willing to take this role of assisting with the communication.

Hierarchical status of staff

In the healthcare system, the different professional standing of staff can create a disparity of power gaps in communication (Chant et al, 2002). Nurses and doctors involved may possibly have a communication breakdown, particularly in information delivery involving patients and family. This further expands the communication gap of nurses and doctors resulting in poor communication. Nurses feel inferior to doctors in the hierarchical status and therefore tend to exercise their power on the patients (Hewison, 1995). However in a study conducted by Sawatzky (1999) role difficulties attributed to hierarchical status was not significant as a cause for poor communication. This lends support to the suggestion that disparity between the different professional levels is affected by situational conditions. It is likely that in ICU where stress levels are high, status difference makes an impact (Chant et al, 2002). It was proposed by Yam and Rossiter (2000) that in order for more effective communication skills among the different hierarchical staff levels, a more egalitarian approach and cooperative relationship be cultivated.

The hierarchical status of doctors in Malaysia remains very high and in a public hospital, nurses are expected to unquestioningly obey senior doctors' orders. In the ICU, doctors attending to the patients are senior medical officers and junior nurses who often are inexperienced avoided any confrontation with these doctors (Sahan, 2002).

Nurses experience

The clinical nursing experience of nurses may contribute to the success of communication. Lack of clinical nursing experience has been cited as a barrier to nurse-

client communication (Bergbom-Engberg & Haljamae, 1993). Nurses with less than five years experience may have minimal communication with patients, the main contributing factor being the heavy workload and anxiety experienced by these nurses. Hagland (1995) also cited lack of clinical experience as a contributing factor to poor communication, as nurses' priority was related to physiological rather than psychological care. The inexperienced nurses' concern is more on the technical aspects of care rather than on the psychological aspects of care. In situations where advanced technology application is enforced, as in the ICU, the technological complexities faced by the inexperienced nurses may forced them to disregard the patient (Mann, 1992). On the other hand, experienced nurses with more than five years experience were able to demonstrate appropriate communication activity with the patients based on their assessment of the physiological and psychological needs of the patients (Bergbom-Engberg & Haljamae, 1993). Familiarity with the physiological and psychological needs of the patients enabled these experienced nurses to balance their care in both domains. However, there may be other factors that could result in poor communication among the inexperienced and the experienced nurses, and this could be related to the nurse's own communication skills and knowledge on communication.

Training and education

The provision of adequate and qualified staff is necessary to facilitate communication and interaction with patients. Where recruitment cannot meet the desired demand for staff, then nurses without adequate preparation or training are recruited to work in the ICU. When ICU nurses lack the preparation to work in such settings, they face difficulties in coping with the technology in use, and are not able to identify the unique problems related to ICU nursing including the nurse patient relationship (Borsig & Steinacker, 1982). When this occurs, inexperienced nurses become distracted by the technological and physiological demands of the patient in preference to psychological needs, as survival of patients takes first priority (Hagland, 1995) as mentioned in the technology section earlier.

Communication and establishing good interpersonal relationship between nurses and clients should be an ongoing process and nursing management should realize the significance of continuous education to staff. Efforts to evaluate the effectiveness of nurse client interaction should be enforced on a periodic schedule and followed up by implementing viable suggestions to benefit all consumers. Inexperienced nurses should

be mentored by senior nurses and encouraged to communicate. Nurse managers should initiate reinforcements of communication among staff and support this activity by being a role model.

All the above mentioned barriers may contribute to the consequences listed in Figure 2.1 (page 37). These consequences may have a major effect on patients and clinical outcomes as well as their level of satisfaction. Among the consequences identified are sub-optimal clinical outcomes, client dissatisfaction, reluctance to communicate which affects nurses and patients, anxiety and stress (patients, relatives), misunderstanding and poor patient compliance.

It is proposed by Hagland (1995) and Elliott and Wright (1999) that by managing the recognized barriers of communication through education, interpersonal interaction will be enhanced which in turn will improve patient outcomes and satisfaction. Hafsteindottir (1996) suggested that nurses should be taught the different ways of communicating in a therapeutic manner and to value attributes of good communication. Brereton (1995) proposed that nursing education has a vital role in steering nurses to be competent communicators, through various teaching strategies such as video tapes, reflective thinking, role modeling and facilitation of communication through theory-practice relationship. The enhancement of communication skills at all levels of nurse education, particularly at the post-registration level should be a continuous process (Albarran, 1991).

The second part of the conceptual framework, shown in Figure 2.2 (page 38) identifies the barriers to communication according to the priorities identified from the first part of the study. Those communication barriers that are of top priority and amenable to change by nursing education will be developed into training packages. The training packages will be prepared taking into consideration the adult aspects of learning such as self-directed learning (Sparling, 2001) and emphasizing an interactive and reflective approach. Adult learning principles emphasize the ability of the teacher to facilitate and enhance learning in adults through learner-centered education (Knowles, 1998). Among the principles practiced include problem solving, actively encouraging participant involvement to improve learning retention and building on the participant's previous experiences. The reflective approach, which incorporates evidence-based practice, will further enhance the nurses' knowledge on communication from research findings. This

will assist the nurses to decide the best approach to communication that suits the needs of their community. Nurse Managers play a pivotal role in demonstrating good communication practices and should include a junior nurse whenever they communicate to a relative or patient.

As the nurses in the ICU would have some knowledge on communication from their pre-registration programs, the education program will be designed to assist nurses in their ability to build on their pervious experiences and willingness to communicate. This will encourage them to participate actively in the teaching session for better knowledge retention.

One of the expected outcomes of this study is that patients will have improved clinical outcomes and satisfaction. The significant others are expected to report improved communication and be more satisfied with the level of communication. As for the participating nurses, it is expected that improved communication skills observed in their daily work.

Having acknowledged the various factors affecting nurse patient communication in the Malaysian setting, it can be surmised that this study may be able to contribute to improving communication between nurses and clients in Malaysia through the educational module discussed above.

By conveying the findings of the study to all Malaysian nurses and particularly to those attending the education modules, it is expected that there will be better understanding of the importance of communication. They will be able to better appreciate the findings of the study as it demonstrates the lived experience recorded within their own surroundings. The use of research findings can enhance nurses' utilization of knowledge in their clinical practice (Bucknall, 2001). When ICU nurses initiate change according to evidence provided by research findings, and are supported to carry out those changes by their organization, it has been shown to have positive outcomes in the ICU (Thomson, 2000).

CHAPTER THREE
Methodology

This Chapter begins by presenting the location of the study, discussion of the methodology and the research design. The Chapter also outlines how the research participant samples were recruited, the analysis of the research data and concludes with the ethical considerations.

3.1 Location of the study

The study was conducted at two public teaching hospitals: one was located in Kuala Lumpur in the Federal Territory and is the capital city for Malaysia. It will be referred to as Hospital A. This is the main referral centre where all state hospitals refer their patients. The second hospital is located 40 kilometres from Hospital A in the state of Selangor. This will be referred as Hospital B.

Both hospitals are government funded and are under the purview of the Ministry of Health, Malaysia. They have a hospital director but Hospital A's director reports directly to the Ministry of Health while for Hospital B the director reports to the state health director. Permission to conduct the study in Hospital A was obtained from the director while in Hospital B the letter went to the state health director who approved and then forwarded the letter to the Hospital B director.

The hospitals

All the 14 states in Malaysia have a state hospital as well as smaller district hospitals. The state hospital is the main referral centre for each state. An ICU is available in all state hospitals and in some district hospitals. The main referral centre for Malaysia is located in Hospital A.

All state hospitals in Malaysia observe two visit periods in a day, including the ICUs. In particular all ICUs allow only two people to visit at any time during the visiting hours. The first visit is in the afternoon from 1230 hours until 1400 hours and the next in the evening from 1630 hours until 1900 hours.

ICU Hospital A

Being the referral centre hospital for the country, Hospital A caters for a wide variety of specialty care. It has a bed capacity of 2,500 beds and is the largest in the country. The general ICU where the study was conducted is located on the third floor of the south block of the hospital. It used to be a ward and was upgraded to accommodate an 18 bed general ICU. The previous general ICU was only an eight bed unit. The unit is rectangular in shape and one side of the unit is divided into cubicles with four beds in each cubicle. The isolation room is located at the far end of the unit. On the other side of the unit is where the pantry, nurses' station, nurse unit manager's room, anaesthetist call room, preparation room and storeroom are located. See the diagram layout in Appendix 1. The hospital has other specialty ICUs for renal, neurology and paediatric patients.

The general ICU has two Nurse Unit Managers and is staffed by 71 registered nurses. There is no visitors' room for the family members. They wait along the corridor outside the ICU where a few sofas are placed. The entrance door to the unit is not locked but there is a security guard on duty. Officially there are two visiting times to the unit like any other units in the public hospitals but here family members can come in to visit anytime provided there is no nursing procedure or doctors attending to the patient. They can only come in for short visits in between the visiting hours.

The average admission for three months prior to the study from the months of September 2003 to November 2003 was 85 patients. This was the total number of admission for the three months. The breakdown of male patients to female patients is 51 (60%) and 34 (40%). The breakdown according to ethnic groups was Malay patients 43 (50%), Chinese 17 (20%), Indians 18 (21%) and others seven (8%).

ICU Hospital B

This is a state hospital for Selangor. The bed capacity for this hospital is 830 beds and the specialty care includes medical, surgical, paediatric, obstetric and gynaecology, and orthopaedic. There is only a general ICU and it is a combined unit with coronary care. This unit is located on the fourth floor of the main hospital block. Other state hospitals have a similar set-up of combining both the ICU and coronary care unit together.

The ICU for Hospital B is an open space and the patient's bed is aligned to one side of the unit while the nurses' changing room, doctor's room and the unit manager's room is on the other side of the unit. The general ICU is a six bed unit while the coronary care unit is four beds. The staffs are shared across the two units. There is a nurse unit manager and staff of 41 registered nurses.

There is an adjoining visitor's room to the unit with only a few sofas placed in the room. The entrance door is locked and a security guard is placed on watch. The guard will only allow two visitors at any time to a patient and only during visiting hours. All visitors have to put on a plastic apron when visiting. The layout of the unit is in Appendix 2.

The average admission accepted to this hospital for three months prior to the study from September 2003 to November 2003 was 31 patients. There were 19 (60%) males admitted and 12 (40%) females. The breakdown of ethnic groups was Malays at 16 (52%), Chinese five (16 %), Indians six (16%) and others five (16%). Both ICUs in the study accepted major medical and surgical cases as well as cases from other clinical specialities. The Malay patients are the majority admitted to the public hospitals as the Chinese preferred to go to the private hospitals. The Indians are a minority group.

The Table 3.1 shows the relative sizes of the hospital and the abbreviations used when referring to the hospitals in the study.

Table 3.1
Summary of the two hospitals and identity used in the study.

	Hospital Kuala Lumpur	Hospital Klang
Referred to as	Hospital A	Hospital B
Bed capacity	2500	830
ICU capacity	18 beds	6 beds
Admission (ICU)	85	31
Males	51(60%)	19 (60%)
Females	34 (40%)	12 (40%)
Malays	43 (50%)	16 (52%)
Chinese	17 (20%)	5 (16%)
Indians	18 (21%)	5 (16%)
Others	7 (8%)	5 (16%)

3.2 The period of data collection

The period of data collection for Phase One began from the time the questionnaire was distributed until the completion of interviews with staff, patients and families. Phase One started on 17 December 2003 and ran until 16 February 2004, a period of two months.

The period of data collection for Phase Two and Three was from 8 June 2004 till 16 July 2004, a period of five weeks.

3.3 Research design

This was a descriptive interventional study on the multi-dimensional barriers to nurse client communication in two ICUs in Malaysia. The study incorporates qualitative and quantitative research methodologies. This method has been proposed by nurse researchers (Begley, 1996; Nieswiadomy, 1993; Polit & Hungler, 1995) to justify the use of quantitative and qualitative data to simultaneously integrate the two approaches. A combination of these two methods have been regarded as superior in the quest for explanation accuracy and confirmation of findings, gathering in-depth information for completeness in the participants studied (Begley, 1996). Among the advantages include overcoming the bias of single method theory studies; increased confidence in the results

gaining deeper insights into complex social issues; completeness of data in terms of breadth, depth, richness, wholeness, and allowing divergent results to enrich the explanation (Begley, 1996).

The use of quantitative methods in the study helped the researcher to gather information in a systematic manner. This is demonstrated with the use of sound level monitor to gauge the noise level at different times. Questionnaires used to gather information from the nurses formed the baseline for corroborating information gained from observation and interviews.

The qualitative methods employed are interviews to the three participant groups as well as participant observation of nurses. This enriches the information and gives a factual account of the situation. When combined the two information enriches the explanation of the findings (Begley,1996).

A single method employed will not be useful in giving an accurate account of the communication activities studied.

This study was conducted in three phases. Phase One aimed to identify the barriers to communication. The data were collected from the participants who were patients, family members and nurses. These barriers were then prioritised and those barriers that are amenable to change used to inform the contents of an education program for Phase Two.

In Phase Two, the preparation of the education program for ICU nurses used an androgogical approach (Sparling, 2001) with an emphasis on interactive and reflective learning methods. Nurses who participated in Phase One of the study were invited to attend this education program.

In Phase Three, the evaluation phase, nurses were observed and noted for any change in behaviour of their communication activities to patients and families. They were then interviewed and finally asked to answer a questionnaire to seek their views and experiences on communication after their attendance at the education program.

The Flowchart below summarises the data collecting procedures.

Phase 1

Demographic data of nurse participants

↓

Participant observation of nurses, ICU milieu, noise level measurement

↓

Focus group interview of nurses on communication barriers

↓

In-depth interview with family members

↓

In-depth interview of participating patients post ICU discharge

↓

Phase 2

↓

Prioritise findings of communication barriers. Prepare education program. Implement education program

↓

Phase 3

↓

Observation of the nurses who participated in the education program. Focus group interview and answer questionnaire.

Figure 3.1. Flowchart demonstrating the data collecting procedures.

3.4 Instruments

The instruments used in the study were staff questionnaire; an observation recording sheet form for participant observation and a sound level meter; in-depth interview schedule and focus group interview schedule.

The nurse unit managers of both hospitals were provided with an explanation of the study protocol and the information sheets about the study were then given to nurses (Appendix 3). They were asked to sign the consent form should they wish to participate in the study (Appendix 4) following which they answered the attached questionnaire (Appendix 5). The researcher then coded the questionnaire and kept the consent form separate to ensure confidentiality.

Staff Questionnaire

The staff questionnaire was used to solicit information on the nurses' ethnic group, age, working experiences, language proficiency, marital status and education level. This information was analysed to provide a profile of the nurses' demographic data and to elicit information about the ICU environment and communication. The use of this anonymous self-reported instrument enabled the disclosure of factual information from respondents as well as providing the respondents with an opportunity to answer without fear of any reprisal if they were critical of their employer (Nieswiadomy, 1993).

The questionnaire was developed by adapting the instruments used by Ashworth (1980) and Green (1996) in their studies of the communication activities of ICU nurses. The questionnaires by Ashworth (1980) were tested prior to her study while Green (1996) adapted her questionnaires using Ashworth's original instruments. The adaptation was guided by the research literature and also in consultation with the research supervisory panel. Modifications to the questionnaires were done to meet the research aims and to reflect the nursing conditions in Malaysia. There were two sets of questionnaires in the study. The first set was to elicit baseline information of the participant and their perceived knowledge on communication. The second set of questionnaires was to elicit the participants' knowledge of communication and potential practice changes after the education program. The first was distributed in Phase One (Appendix 5) and the second in Phase Three (Appendix 6).

Phase 1 questionnaire

The 16 item questionnaire (Appendix 5) was developed as described above. No names were recorded on the questionnaire.

There were three parts to the questionnaire: Parts A, B and C. Part A comprised of questions pertaining to the nurses' profile. The nurses' profiling questions provided information with regards to age, ethnic group, experience, education and language proficiency. Part B had 13 closed ended questions and Part C had six questions scaled from 1-5. These questions solicited information on communication and ICU environment. The nurses were asked to select the value to reflect their choice of answer. The answered questionnaire was summarised and presented as descriptive statistics in the research findings.

The questionnaire was distributed to the nurses with the help of the nurse unit managers. There were eighty three nurses who participated and answered the questionnaire from the two hospitals.

Phase 3 questionnaire

The questionnaire for Phase Three (Appendix 6) was distributed by the nurse unit manager to 27 nurses from the two hospitals who attended the education session in Phase Two. This questionnaire had two parts: A and B. Part A again profiled the nurses' demographic data such as age, ethnic group and experience in the ICU. Part B had 15 closed ended questions seeking information on communication practices.

There were different set of questionnaires for Phase One and Phase Three as in Phase One, the researcher wished to seek baseline information of the nurses' communication activities and demographic profiling. As the nurses who participated in the study were informed that they would be involved in Phase Two and Three of the study, the profiling data was not included for Phase two questionnaires and the questions for Phase Two seek new information on communication activities after the education program has been conducted.

Participant observation

The second method of data collection, the participant observation and observation of the ICU milieu was chosen in order to give the researcher richer, first-hand information about the patterns of communication in the ICUs. Another reason for selecting this method was the ability to directly observe the interactions between the nurses and patients and their associated body language. The use of participant observation together with another instrument, the in-depth interview, enhanced the study's reliability by providing a different perspective on communication practices. Data from participant observation was used to challenge, contradict or supplement existing data (Oldfield, 2001).

There were two sets of participant observation. The first was conducted in Phase One and the second in Phase Three of the study. The existing rapport between the nurses and the researcher from previous association made the observation easily manageable and the researcher was accepted as another colleague, thus limiting her intrusion into the environment and nurse communication behaviour.

Phase 1- participant observation and ICU milieu

After gaining consent and completing the first questionnaire, a total of 35 nurses were observed in the two ICUs. All the nurses were observed for two hours during the duty hours of morning, afternoon and night. During each shift between two to three observations took place. The observation took place for four weeks between the two hospitals. A greater number of observation periods were undertaken at Hospital A due to the larger participant and staff population.

The observation of nurses was on the care they provided to 35 patients on the unit at the time of the study. The majority or 26 patients (74%) were unconscious, with five (14%) conscious and four (11%) semi-conscious. There were more male than female patients observed, concurring with the usual male population admitted. They were of mixed ethnic group.

There was no discrimination of busy hours and non-busy hours in the unit during the morning and afternoon shift as activities occurred all the time. Admission and transfer of patients out of ICU occurred anytime whenever a bed was needed. Observation was conducted at various times and during different shifts. This allowed the researcher to observe the communication that took place during the different times of the day. The most shifts observed were the morning shift followed by the afternoon shift. During these two shifts, most communication between nurses and patients had previously been observed to take place (Elliott & Wright, 1999). There was less communication during the night shift.

The participant observation was used to enable the researcher close contact with the nurse while the nurse performed her nursing duties and so allowed the observation of the communication process. The researcher informed the nurses of the observation and volunteered to assist the nurse to avoid being obtrusive and to have a concise view of the activities of nurses and patients. The nurses declined assistance saying they have been assigned another colleague to help them but allowed the researcher to be in close proximity when a procedure was performed. This allowed the researcher to observe without having to assist at the same time which facilitated the process of note taking during her observations. The nurses said they were quite accustomed to being observed as there have been a few other people before this conducting a study in the ICU. At the

time when the study was conducted the nurses were preparing to be evaluated by personnel from the National Accreditation Board.

ICU patients were the medical responsibility of anaesthetists and they were reviewed by different medical specialists according to their condition.The main observation of the nurse patient interaction focussed on verbal and nonverbal communication initiated by the nurse or patient, the duration of the communication, the content and purpose, whether it was related to procedures or social interaction. Each interaction was recorded using a pre-designed format (Appendix 7) designed by the researcher to record the activities related to communication during the observation period. Additional notes were written to explain details observed that were not listed on the forms.

As well as observing the nurses, the ICU milieu was also observed. The observation took note of the environmental barriers that contributed to impaired communication, like noise levels due to the traffic of staff and others, from people's conversation, ringing telephones, heavy machines movements, cleaners and from the alarms and air conditioning. The lighting of the unit, particularly the placement of the lights was also noted. A noise monitoring device was used to measure noise at intervals noted to be most busy and during quiet times when there was less activity. The researcher observed any other contributing factors that may present barriers to effective communication. This included the medication used on the patients which could affect patient perceptions, like sedation, analgesia or muscle relaxants.

The participant observation of nurses and the ICU milieu was conducted a week after the staff questionnaire was collected. The participant observation for Phase One lasted for five weeks.

Sound level meter

Part of the ICU milieu observation included measuring the sound level on the unit. A noise level meter was used to monitor the noise level in the two units. The sound level meter was designed to meet the measurement requirements for industrial safety offices and sound quality control in various environments. The model used was IEC651, ANSI SI.4. It can measure a range of noise levels from 35dB to 130dB at frequencies between 31.5 Hz and 8 KHz. It has two weightings: A and C. The A weighting is for general noise sound level and C weighting is for measuring sound level. For purposes of

measurement of noise in the ICU the A weighting was selected. An electric microphone is attached to the unit. In order to avoid extraneous noise recorded by the microphone, it is placed away from direct wind. During the measurement of the noise level, it operated on batteries. The device was calibrated before use. A slow setting was selected to measure the average sound level. The readings were displayed on the LCD display monitor.

Readings from the sound level monitor was recorded when it showed a stable reading, which is about one minute after it was switched on and the reading remained constant. The noise level was measured at different intervals in Phase One but sound level was not measured in Phase Three as noise was not reported as a contributing factor impacting on communication. Some nurses from Hospital A reported the ICU as noisy, but do not hinder communication.

Phase 3 participant observation and ICU milieu

The participant observation in this phase was conducted once the education program on communication barriers had been delivered. There were 17 nurse participants for this Phase. The number was less than Phase One as the nurses were on different shifts and by this time, the researcher could sometimes only observe one nurse on the days she was at the hospital. They were nurses from Phase One who had consented to the study and had attended the education program. The observation included their initiation of communication with the patient, the length of communication, content and the communication aid used. The variables observed were similar to those in Phase One observation (Appendix 7). Additional information was recorded on the back page of the form. The duration of observation was two hours and conducted only in the morning and afternoon shift.

The ICU milieu was again observed for its effect on staff communication but the noise level was not measured as noise which possibly impacted on communication was generated from sources such as the air-conditioning plant. As this was not able to be modified prior to Phase Three further noise monitoring would not add to assessing the impact of the intervention.

The nurses were given a few days after the education program before the researcher commenced the observation phase. The change over of duty roster posed a challenge to

the researcher as the next week the nurses were scattered in their duty where some were on night duty and others off duty or on leave. Therefore at each observation there might be only two nurses who participated in the educational program that could be observed.

3.5 Interviews

The third approach was in-depth semi-structured interview of patients (Appendix 8) and relatives (Appendix 9) and nurses in focus groups (Appendix 10) in Phase One. The purpose of interviews is to elicit information from the participants to enrich the data collected from the other methods used (Bogdan, 1982). In all three groups the researcher employed the common practice of starting with a broad question and then progressing to more specific issues (Marrow, 1996). This was to put participants at ease, especially the patients and relatives lest they felt threatened with the procedure as the researcher was not known to them. The interviews assisted the researcher to identify the feelings of the three groups of participants and allowed the researcher to compare and contrast the data elicited. This enriched the findings and interpretation of the data.

Questions for the in-depth interviews of nurses were different in Phase One and Phase Three, as the objective of the interviews were different. In Phase One, the objective was to elicit information on the nurses' feeling of communication and their views of communication. In Phase Three, these nurses were aware that they were observed on their communication practices after the education program and the interviews were meant to solicit their communication practices after the education program. The numbers were different from Phase one, again due to their duties where they were on days off after night duty or were on night duty.

Patient's in-depth interview (Phase One)

Patients were interviewed 12 hours after discharge from the ICU. This was to enable them to have sufficient rest and for the anaesthetic agent and sedation to be worn off. They were first informed of the aim of the study and asked to read an information sheet (Appendix 11), following which a consent form was signed (Appendix 12). In cases where the patient could not read and understand, the researcher read it out to the patient and explained the contents. If the family members were around, the researcher engaged them to assist in explaining the details of the information. Names were recorded but the patients were assured that their information will be treated confidentially and cannot be

linked to them by anyone but the researcher. The interview was conducted at the patient's bedside. All interviews were recorded on a tape recorder.

Relatives in-depth interview (Phase One)

The relatives were approached while the patient was still in the ICU. They were informed of the aim of the study and an information sheet was issued (Appendix 13). A consent form (Appendix 14) was signed if they wished to participate in the study. The interview was recorded and taped and conducted outside the ICU away from distractions.

Some family members were hesitant initially but after the researcher had explained explicitly the objectives of the interview to them they freely consented for the interview.

Nurses' focus group interview (Phase One & Three)

After the participant observation had been completed, the researcher conducted the nurses' focus group interviews. The objective of these interviews was to solicit information on nurses' communication and their suggestions to overcome any communication barriers experienced. A focus group was deemed suitable as nurses were a group with common characteristics and the researcher could elicit thoughts, perceptions and idea about a specific topic (Holloway, 1997).

There were two sets of focus group interviews for nurses. One occurred in Phase One of the study and the second took place in Phase Three.

For Phase One there were eight focus groups of nurses interviewed. They were nurses who had consented to the study but some may not have been observed in the observation phase. The reason some may not have been observed was due to logistics as the researcher was observing someone else or they may have been on their day off duty. The number of nurses ranged from four to six nurses per group with a total of 40 nurses. The majority of nurses interviewed were Malays. This was because Malay nurses constituted the largest ethnic group in the two participating hospitals. Only two of the nurses were Indians and there were no Chinese nurse participants.

The interviews lasted between 35 minutes to one hour and were recorded on tape. The focus group interview was conducted at both ICUs and it took two days to complete the interview session in each hospital. In both hospitals the nurses requested the interview

be conducted during working hours. Nurses preferred to be interviewed during their working hours so that they could leave for home straight after work. All were not willing to be interviewed after their duty hours citing problems with transport and the frequency of staying late on other days due to heavy workload. This was discussed with the unit managers and they agreed to support the interviews on the understanding patient care was not compromised. The unit manager allowed the nurses take turns for the focus group interview, hence the many groups interviewed. Although nurses work a seven hour shift, most of the time they work extra hours to complete t.eir work before leaving the unit.

All the interviews were conducted in the unit's preparation room and the language used was a mixture of Malay and English. The interviews were later transcribed verbatim and were translated to English by the researcher. The semi-structured interview questions for the Phase Three focus group interviews were as scheduled in Appendix 15.

Phase Three focus group interviews were conducted after the observation period. There were two groups of nurses participating in the interview, one from each hospital. There were six nurses from Hospital A and four nurses from Hospital B. The researcher was able to gather all the nurses observed in this phase for the interview with the assistance of the unit managers in arranging the roster of these nurses so they were available on the day of the interview. All the interviews were recorded on tape and lasted between 25 and 45 minutes.

3.6 Recruitment of participants

The participants recruited for the three Phases included the following. For Phase One there were 83 nurses who participated in the study and answered the questionnaire; 35 nurses were observed during the observation period, 21 patients and 23 family members interviewed and eight focus group interviews of nurses (a total of 40 nurses).

In Phase Three there were 27 nurses who participated in the education program out of which 18 nurses were observed. There were two focus groups of nurses interviewed or a total of ten nurses and they were all observed in Phase Three. The differences in the numbers were due to the different shifts that the nurses' were assigned to as they were rotated to three shifts. On certain days, the researcher was able to observe only one nurse.

The reduced number of nurses participating in the two phases was due to the different shifts they were assigned as the researcher only recruited those nurses who have consented to the study. The change of duty within the three shifts affected the number of nurses who had been recruited for the study.

Phase One – recruitment and data collection procedures from nurses

The researcher discussed with the unit manager of the two hospitals the recruitment of staff nurses for the study. Even though the researcher was granted permission to conduct the study by the respective head of department of the hospitals, consent from the unit manager was sought   establish rapport and to ensure cooperation from the manager and staff.

The recruitment sample included nurses who consented to the study and who met the criteria of at least one month's experience in the unit. It is believed that nurses with less than one month experience have insufficient time to adjust to their role and responsibilities in the ICU (Bergbom-Engberg et al., 1988). The questionnaire was given to the unit manager on the 17 December 2003 to be distributed to the eligible registered nurses and one week was given before the researcher came to collect the questionnaires. Nurses away on leave, nights off, confinement leave and on study leave were not included. In addition, nurses who did not wish to participate were also excluded.

There were 73 registered nurses working in the ICU of Hospital A, of which three were assigned to the acute pain service. This meant they were not involved in general patient care as they were responsible for the delivery of continuous intravenous analgesics to the patients in the ICU and those in the wards and therefore were not included in the study. A total of 51 nurses or 73% of a total of 70 staff nurses from Hospital A were recruited onto the study.

There were 41 registered nurses in the ICU of Hospital B. The nurses who agreed to participate were 32 staff nurses or 78%.

The data collection for nurses included a survey questionnaire, participant observation and a focus group interview. This is represented in the figure 3.2 below.

```
Data source : Nursing staff Hospital A & B
1) Method    : survey questionnaire
   Focus     : staff profile
             : communication knowledge, ICU environment.
         n   83 nurses
2) Method    : focus group interview
   Focus     : obstacles to communication
             : suggestions for improvement to communication
         n   8 groups (40 nurses)

3) Method    : Participant observation
   Focus     : communication activities.
             : ICU milieu, noise and lighting
         n   35 nurses
```

Figure 3.2. Phase 1. Nurse data collection

Phase One – recruitment, data collection procedures from relatives

The inclusion criterion for family members enrolled in the study was that they had visited the patient in the ICU at least twice. An in-depth interview was conducted on a one-to-one basis with the family member. They were told that should they wish to defer or not participate, that was their choice and would not affect the patient's care. The relatives were approached as they waited for the patients outside the unit.

The interview was conducted just outside the ICU, so that family members were near the patient in case they were needed. For Hospital A, there was no room available for the interview and it was conducted in a corner of the waiting area where there were no distractions and the interview could not be overheard by other people in the waiting room. For Hospital B, the waiting room was small and not suitable for conducting the interview. There was also no other room available, therefore the interview was conducted in the corridor near the ICU, but away from distraction. The interview for family members was conducted over a three week period. All the relatives who were available during the time frame were approached.

In Malaysia, family members who visit and stay within the ICU are usually female family members. It was noted that there were more female visitors who stood vigil at unit of their loved ones. They stayed in the unit area even without very basic amenities like a rest room or a wash room nearby. Most Malaysian women are expected to remain at home after marriage and fulfil a largely domestic role which includes caring for the sick. Even if a woman works, she is expected to look after the family member who is ill (Status Report, 2001).

For Hospital A, it was easier for them to access the unit as the entrance door was not locked, except at night and the security guard was not always at the guard post. For Hospital B, there was no way for relatives to walk in as they liked because the door was always locked, and the security guard was always around. There were also no windows that they could see through. They usually stayed in the corridors near the unit and did not go home at all.

The aim of the interview was to solicit information on communication with nurses and their experiences while visiting the patient in the ICU. They were asked to suggest ways to overcome communication barriers if identified. The Figure 3.3 shows the data collection from family members.

```
Data source : Relatives
1) Method    : interview
   Focus     : solicit obstacles to communication, experiences in ICU;
               support given and suggestions to address or overcome
               obstacles.
            n  23 relatives
```

Figure 3.3. Phase 1. Data from relatives

The interview was tape recorded. Most of the interviews were conducted in Malay as the participants preferred the Malay language. There was a participant who communicated in English.

There were 26 relatives approached from the two hospitals and of the 23 who accepted 16 (70%) were female and 7 (30%) were male. Out of the 23 relatives interviewed, 74% or 17 of the relatives were Malays, 17% were Chinese and 9% were Indians. The relationship of the relatives to the patients included two (7%) husbands, 13 (57%) wives, four (17%) mothers, two (7%) fathers and two (7%) siblings. Their ages range from 18 to 55 years old and the patients had been admitted between one to three days to the ICU. The relative who spoke in English worked in the Department of Information Technology, one husband worked with the Ports Authority and another was retired. The wives were all homemakers. The other relatives worked with the private sector or had their own business.

Phase One –recruitment and data collection from patients and selected patient clinical history

The patients included in the study met the inclusion and exclusion criteria set by the researcher. The inclusion criteria were: the patient must be above 18 years of age as they were able to give their own consent for interview; admitted to the ICU for more than 24 hours so they could have had first-hand experience of an ICU; discharged from the ICU more than 12 hours to enable them to be more orientated and their general condition stable. They would be less influenced by medication such as sedation and their ICU recollections were still likely to be fresh.

The exclusion criteria included patients with severe cognitive dysfunction, psychosis, aphasia and non-Malaysians. Non-Malaysians were excluded as the researcher wanted to identify any common barriers to communication among the three major ethnic groups in Malaysia. The inclusion and exclusion criteria are summarised in the Table 3.2.

Table 3.2
Inclusion and exclusion criteria of patients

Inclusion criteria

Age   above 18 years

Admitted to ICU for more than 24 hours

Discharged from ICU more than 12 hours

Exclusion criteria

Severe cognitive dysfunctions

Psychosis, aphasic

Non   Malaysians

All patients discharged during the time period of the study (17 December 2003 - 16 February 2004) were included, subject to their condition and willingness to participate. They may or may not have been observed during the observation period conducted on nurses.

Patients were informed that should they want to discontinue with the interview they would be able to do so without any obligation and this would not compromise their care (see also Ethical consideration). They were asked to verbally inform the researcher if they wanted the interview terminated. The patients were observed for any signs of

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distress. Should this have occurred the researcher was prepared to refer them to a professional counsellor and the interview was to be scheduled for a later date. There were no patients who required any counselling or had their interview terminated for any reasons.

The aim of the interview was to solicit information on the patient's experience while in ICU and to determine if they experienced any difficulty in communicating with the nurses. They were also asked to suggest any improvements that could be implemented to help improve communication. The data collected is summarised in Figure 3.4.

```
Data source     : Patient  12 hours post discharg  '   n ICU
1)  Method      : in-depth interview
    Focus       : demographic clinical background
                  experience in ICU
                  communication obstacles
                  agree to the need for communication
                  suggestions to overcome obstacles

                n: 21 patients
```

Figure 3.4. Phase One. Patient data collection

The interview was conducted on the respective ward of each patient. The nurse manager was approached to seek consent and the interview was conducted after the ward round had been carried out. It was conducted on a one-to-one basis and tape recorded. Each interview lasted between 20 to 40 minutes. There were 19 patients who wished the interview to be conducted in Malay, whilst two requested the interview to be conducted in English.

The researcher approached all the patients discharged within the time frame of data collection that is from 26 January 2004 till 16 February 2004. Of the 31 patients who met the criteria and were approached, 21 (68%) agreed to be interviewed. Two patients were not interviewed as their medical condition remained weak and their speech was inaudible.

The patients were a mixed group in terms of age and ethnic groups. Their ages varied between 19 to 63 years. There were 13 males (62%) and eight (38%) females consistent with the usual patient ratio. The ethnic components were 13 Malays (62%), four Chinese (19%) and four (19%) Indians.

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The medical conditions of the patients were recorded from the case notes. The majority of the patient participants, 15 patients (71%) from a total of 21, were from the surgical disciplines. Their conditions included motor vehicle accidents, stab wound injury, knee amputation and laparotomy. Medical conditions included myasthenia gravis, anaemia, chronic obstructive airways disease and asthma.

The researcher also solicited information on the patient's admission records for the last three months prior to the study. The purpose of looking at the previous three months admission record of the two participating ICUs was to obtain comparable data for patients with the present study. Demographic profiles of the study sample were found to be broadly comparable with the normal ICU patient profile.

In Phase Two of the study, the data obtained from Phase One were summarised and prioritised to identify the barriers to communication.

3.7 Phase Two - Development of the Nursing Education Program

Phase Two of the study used the key findings of communication barriers prioritized from Phase One. The researcher identified barriers to communication from the in-depth interviews of nurses, patients and relatives and from the participant observation of nurses and ICU milieu. The prioritisation of the barriers was based on the number of frequency with which each barrier was mentioned or observed and from the analysis and interpretation of the qualitative and quantitative data collected during the period of data collection. These barriers were then scrutinised to determine if they were amenable to change within the scope of this study. Only those amenable to change were incorporated into an education program designed for nurses participating in the study. Barriers not amenable to change but in the top priority list are addressed in recommendations to the management for amelioration or future planning.

The education session incorporated a two hour didactic session and active participation of nurses using case management that was ward based (Faulkner, 1988). The teaching session was conducted as an in-service education program.

Designing the teaching material

The teaching material was designed using an androgological (Endacott, 1992; Knowles, 1980) mode of learning. This included self directed learning and reflective learning

where the participants played an active role in the learning process. Nurses in Malaysia were used to the didactic mode of teaching; however this approach was new to both the researcher and participants. The researcher discussed the preparation of the material with the supervisory panel.

The contents of the teaching sessions incorporated the findings of Phase One of the study. Participants were required to offer suggestions to improve communication and the researcher assisted them with their ideas (Appendix 16). Articles of relevance were offered for them to read prior to the teaching session. Four printed copies of articles by Wojnicki-Johannson (2001) and Chant et al (2002) were left on the each of the ICU and staff who participated in the study was asked to read. All the staff could understand articles written in English. Once the education program was ready and checked by the supervisors, the researcher planned the implementation of the program which began Phase Three of the study.

3.8 Phase 3 - Implementation, Evaluation of the Nursing Education Program

In this phase, the initial procedure was the teaching of the nurses according to the education program package prepared in Phase Two. It was followed by observation of the nurses who had participated in the education program for any change in communication behaviour. The final procedure was the administration of a questionnaire to gauge the nurses' understanding of communication issues and for the researcher to seek additional information on communication experiences post-education from the nurses.

Recruitment of nurses for Nursing Education program

Nurses who attended the education program were reminded that this was a continuation of Phase One. Following the teaching session, further observation of them was conducted by the researcher followed by a focus group interview and questionnaire.

The unit manager arranged dates for the education sessions. In hospital A these were 8 June 2004 and 15 June 2004. The first date set was for the nurses on morning shift. There were post basic students on the unit at that time therefore they were able to assist the nurses in the care of the patient. The teaching was conducted after the morning shift,

with six nurses attending. The second group of nurses were from the morning and afternoon shift and 11 nurses attended. It was recorded as an on going educational program for which they were required to attend at least twice a year to be included in their yearly appraisal.

The ICU of Hospital B arranged for the teaching session to be held on the 16 June 2004. Seven nurses attended this session. Four nurses were from the morning shift and the remaining three from the afternoon shift. They signed an attendance sheet so that the researcher was able to observe them for the observation period and asked them to answer the post-questionnaire.

Education program

The researcher informed the nurses of the findings of the study from Phase One during the education program. They were then asked to give their views and comments on the matter for discussion. They participated actively during the session and were asked to reflect on their experiences to share with their colleagues. The researcher highlighted ways that communication could be improved based on the barriers identified. She managed to get good responses from the nurses participating. The senior nurses were actively participating compared to junior nurses. It was this two-way communication during the session that kept it alive and going for more than two hours. When nurses were given a chance to contribute their ideas, they became more responsive.

Questionnaire

The unit manager assisted with the distribution and collection of questionnaires over a one week period. Time was needed as some nurses were on leave, night duty and nights off. The 24 questionnaires were returned fully answered giving a response rate of 100%.

3.9 Data Analysis

Quantitative data collected from questionnaires were analysed with simple statistics for descriptive purposes. The qualitative data gathered from in-depth interview transcripts were coded, explored and analysed into thematic analysis using NU*DIST, (Version N5, 2000) a computer software program designed for qualitative data analysis. The combination of qualitative and quantitative methods used enriched the analysis. Individual and group experiences were enhanced by the context in which they were located.

The interviews from nurses, patients and family members were analysed using an approach described by (Colaizzi, 1978). This is summarised as below.

1. each informant's interview is transcribed verbatim and read in order to improve understanding and gain a feel of what is being said.
2. significant statements and phrases relating to the experience under investigation are extracted from each interview.
3. meanings are formulated from each significant statement.
4. significant statements are organised into clusters of themes.
5. the themes are used to provide a description of the experience.

The observation data of the nurses and ICU milieu obtained through nurse patient interactions and environmental monitoring were organised into themes and coded. The organisation into themes and coding helped structured the data.

3.10 Ethical consideration

Prior to commencing the data collection, the researcher gained approval from the Edith Cowan University Ethics Committee and written approval from the Graduate School to undertake the study. Upon receipt of the formal approval (Appendix 17), the researcher wrote seeking permission to conduct the study in the two hospitals from the hospital's director, after providing information about the purpose of the request. When permission was granted (Appendix 18), the researcher approached the hospital director to inform him of the date for the study and was then referred to the respective area officer in charge who is the nursing director. The nursing director directed the researcher to approach the unit manager and liaised with her on the conduct of the study.

The unit manager was briefed on the purpose of the study and the process entailed. The researcher was allowed access to the ICU and to display her identification tag whenever she was on the premises.

All participants were required to sign a consent form when they agreed to participate in the study. They were informed that all data would be treated with confidentiality.
As the transcriber who was engaged by the researcher would have access to the interview data for transcribing, she was asked to sign a declaration form of confidentiality (Appendix 19) and would only discuss the data with the researcher.

Security of all the data was ensured by maintaining data under lock and key with all master lists linking the interviewees' identity with the tapes or transcripts kept separate. This was locked in a cabinet accessible only to the researcher. All data will be kept for a period of five years after publication of the thesis.

The right to privacy was upheld at all times and the interviews were conducted in private. The right of participants to withdraw at any time was observed. All participants in the study were assured of their confidentiality.

In at any time any of the participants (patients or relatives) indicated they were distressed by the interview session, through facial expression or gestures, the session would be terminated and counselling offered. Should they still manifest distress, the researcher would refer them to a pre-arranged professional counsellor. A later date would be arranged to continue the interview, but if they indicated they no longer wanted to be a participant, the researcher would respect their wish and would no longer include them in the study. The researcher was fortunate that all the participants did not demonstrate any of the abovementioned concerns.

CHAPTER FOUR

Quantitative findings - Phase One

The quantitative and qualitative findings of this study are described in the following three chapters. This chapter describes the quantitative findings of Phase One derived from the nurses' questionnaire, participant observation and observation of ICU milieu. All the findings were analysed manually and provide a descriptive review of the study.

The researcher compared admission records of patients two months prior to the data collecting procedures and ascertained that admission of patients in relation to medical conditions, gender and ethnicity were consistent with admission data collected for the two months the study was conducted in the two participating hospitals. This information delineates any biases regarding the patient population. The data presented in Table 4.1 shows the consistency of patient data of each hospital for the months of October 2003 to November 2003. Table 4.2 shows the admission data of patients during the study. The admission of patients during the study period was comparable to the admissions recorded two months before the study.

Table 4.1
Admission record of patients prior to the study

Primary Problem	Oct 2003		Nov 2003	
	Hosp A	Hosp B	Hosp A	Hosp B
Medical	22(27%)	13 (39%)	28(33%)	8(28%)
Surgical	21(26%)	12(37%)	17(20%)	18 (62%)
Orthopaedic	10(12%)	5(15%)	10(12%)	0
Others	29(35%)	3(9%)	29(35%)	3 (10%)
Total	82(100%)	33(100%)	84(100%)	
			29(100%)	
Gender				
Male	48(59%)	20(61%)	54(64%)	20(69%)
Female	34 (41%)	13(39%)	30(36%)	9(31%)
Ethnicity				
Malays	43(53%)	17(52%)	44(52%)	16(55%)
Chinese	19(23%)	5(15%)	10(12%)	6(21%)
Indians	15(18%)	9(27%)	21(25%)	5(17%)
Others	5(6%)	2(6%)	9(11%)	2(7%)

Table 4.2
Admission record of patients during the study

Primary Problem	Dec. 2003		Jan 2004	
	Hosp A	Hosp B	Hosp A	Hosp B
Medical	26(32%)	14 (40%)	28(33%)	7(23%)
Surgical	25(30%)	13(37%)	20(23%)	15 (50%)
Orthopaedic	12(16%)	7(20%)	13(15%)	5 (17%)
Others	18(22%)	1 (3%)	25(29%)	3 (10%)
Total	81(100%)	35(100%)	86(100%)	
			30(100%)	
Gender				
Male	53(65%)	25(71%)	57(66%)	18(60%)
Female	28 (35%)	10(29%)	29(34%)	12(40%)
Ethnicity				
Malays	46(57%)	18(51%)	52(52%)	15(50%)
Chinese	20(25%)	10(29%)	10(12%)	6(21%)
Indians	11(14%)	7(20%)	20(23%)	8 (26%)
Others	4(5)	0	3 (4%)	1 (3%)

4.1 Nurses' questionnaire

A total of 83 nurses from the two ICUs participated in the study. All were females as there were no male nurses in any of the participating hospitals (Abdullah, 2004) . The nurses completed a questionnaire (Appendix 5) on their personal and professional profile (Part A), their communication practices, knowledge and working environment (Parts B and C).

Nurses' profile

Part A sought information on ethnic group, age and the nurses' experiences. Malay nurses comprised 80.5%, Chinese 10.5% and Indians 9% of the sample (see Table 4.2). The Malays form the majority ethnic group in both the hospitals and in all the public hospitals (Abdullah, 2004). A comparison of the ethnicity of the nurses participating in this study to the total population of nurses in Malaysia is presented in Table 4.2. Nurses from the 'others' category listed in Table 4.3 include the indigenous groups from the East Malaysian states of Sabah and Sarawak. Very few of them work in the states of Peninsular Malaysia where the study was conducted.

Table 4.3
Registered nurses ethnic population in the study and the country

Ethnic group	Present study	Total nurses in the country
Malays	69 (80.5%)	20,862 (85%)
Chinese	8 (10.5%)	1,355 (6%)
Indians	6 (9%)	9847 (3%)
Others	-	1,411 (6%)
Total	83 (100%)	24,475 (100%)

Nurses below 30 years of age comprised 60% of the participants or a total of 50 nurses. Another 18 nurses (21%) were in the under 40 year's age group and 15 nurses (18%) were in the under 50 years age group. Nursing is a young profession in Malaysia and since the 1990s, mass training of nurses was implemented to overcome the shortage of nurses in the country (J. M. Chua, 2000). The nursing candidates were recruited from those who had completed tertiary education at 18 to 24 years old with the majority below 20 years old. The age distribution of nurses is shown in Table 4.4.

Table 4.4
Age distribution of nurses

Age	Percentage
25 years or below	21 (25%)
26-30 years	29 (35%)
31-35 years	13 (15%)
36-40 years	5 (6%)
41-45 years	10 (12.%)
46-50 years	5 (6%)
Total	83 (100%)

There was a variation in the length of service of nurses who participated in the study, ranging from less than a year to those with more than 25 years nursing and ICU service. A total of 20 nurses (24%) had less than a year's service in nursing and in ICU. They were the newly graduated nurses who had reported for duty two months before the study. There were 50 participants with between one and five years nursing service (60%) with 54 (65%) having between one and five years experience in ICU. The following Table 4.5 shows the nurses' length of service and ICU experience.

Table 4. 5
Length of nursing and ICU service

Years	Nursing service	Service in ICU
0-1 year	20 (24%)	20 (24%)
2-5 years	30 (36%))	34 (41%))
6-10 years	12 (14%)	8 (9%)
11-15 years	11 (13%)	14(17%)
16-20 years	7 (8%)	5 (6%)
21 years and above	3 (4%)	2 (3%)
Total	83	83

The nurses were asked to report any formal postgraduate training in ICU. There was a total of 25 (30%) nurses who participated in the study had training in the ICU. In comparison, out of the total 114 nurses in the two ICUs, only 46 (40%) nurses had trained in ICU. Postgraduate ICU training for public hospital nurses was conducted twice a year in two public training colleges with a total participant intake of 20 nurses for each intake. All the participant nurses were educated at the diploma level and none of the nurses held a bachelor of nursing degree. Similarly, none of the registered nurses from the two ICUs held a bachelors degree in nursing.

The majority of nurses (90%) reported speaking Malay fluently, with 9% moderately proficient in Malay. Only 23% admitted to speaking English fluently and 76% admitted speaking the language moderately well. Chinese and Indian nurses spoke their native language well. None of the Malay nurses admitted knowledge of those languages.

The second part of the questionnaire (Parts B and C) solicited information on the nurses' communication practices, knowledge and their views on the ICU environment. They were asked to rank and select the response they felt best described their practices in ICU. The answers ranged from positive values of 1 to 5.

Nurses communication practices and knowledge

There were three questions that sought information on the nurses' communication with patients they cared for in the ICU; communication with sedated/ paralyzed patients; and using touch when communicating with patients (Table 4.5). There was only one nurse

(1%) who noted communicating most times with the patients she cared for in the ICU. This nurse has more than 20 years service in the ICU and a postgraduate ICU qualification. There were ten nurses (12%) who responded 'sometimes', and a further 45 nurses (54%) reported they infrequently communicated to the patients they cared for in the ICU. Another 27 (33%), reported they never communicated to their patients.

The nurses were further asked about their communication with sedated/paralyzed patients and their responses were compared to the previous question. The same nurse who reported communicating with patients she nursed also said she communicated with sedated patients in ICU. On the other hand 39 nurses (47%) responded 'sometimes' which was higher compared to only ten nurses (12%) reported in the previous question. There were 22 (26%) who reported infrequent communication with sedated patients. Another 21 nurses (25%) stated they never communicated to sedated patients as compared to 27 nurses (33%) who never communicated to patients they nursed in the previous question.

For the use of touch as a means of communication to patients, no respondent used it most of the time and only 16 nurses (19%) stated using it sometimes. Another 43 (52%) stated using this mode not very often. Twenty four nurses (29%) reported they never use this form of communication. The summary of the findings is shown in Figure 4.1.
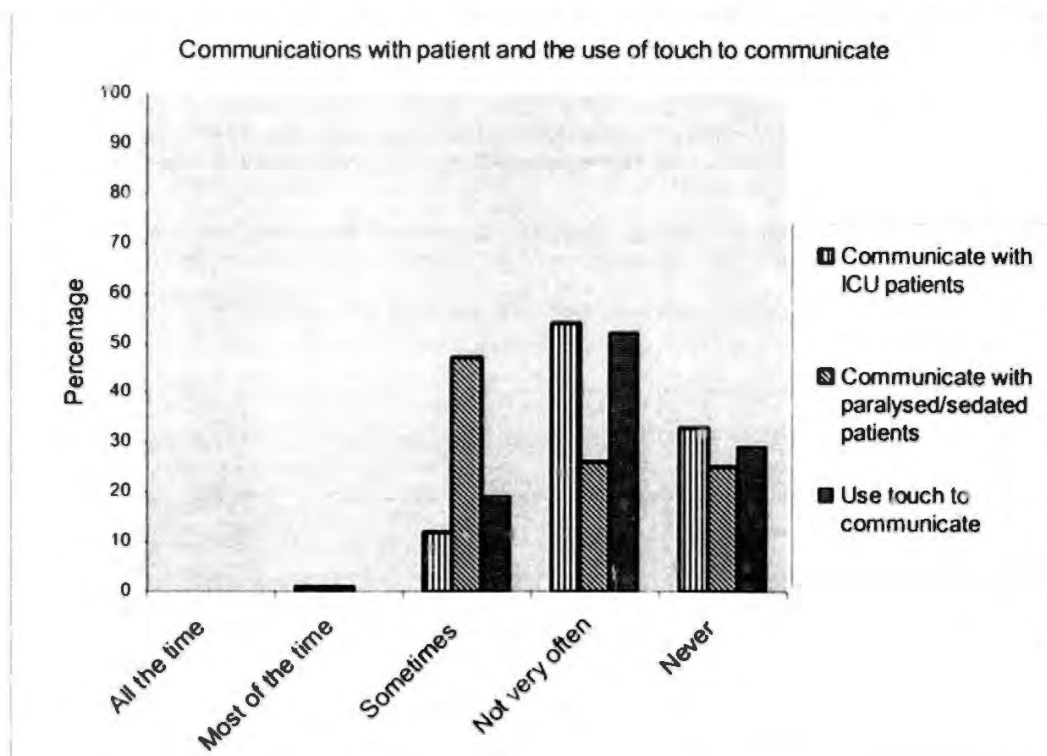
Figure 4.1

*Figure 4.1.*Communications with patient and the use of touch to communicate.

Nurses were asked if they introduced themselves to patients and informed them of impending procedures. There were four nurses (5%) who introduced themselves to patients and four (5%) who did not introduce themselves at all. Another 40 nurses (48%) reported they sometimes introduce themselves to the patients. Another 35 nurses (42%) responded that they introduced themselves infrequently to patients, a lower figure when compared to nurses who infrequently communicate to patients under their care (Figure 4.1).

Only one nurse (1%) reported informing patients of procedures most of the time and she was the same nurse who said she communicated with the patient all the time. Eighteen nurses (22%) reported sometimes, 42 (51%) reported infrequently and 22 nurses (27%) reported they never informed patients of procedures. The number of nurses who reported they never informed patients when performing procedures was consistent with earlier findings on their responses to communication. Figure 4.2 summarizes the findings.
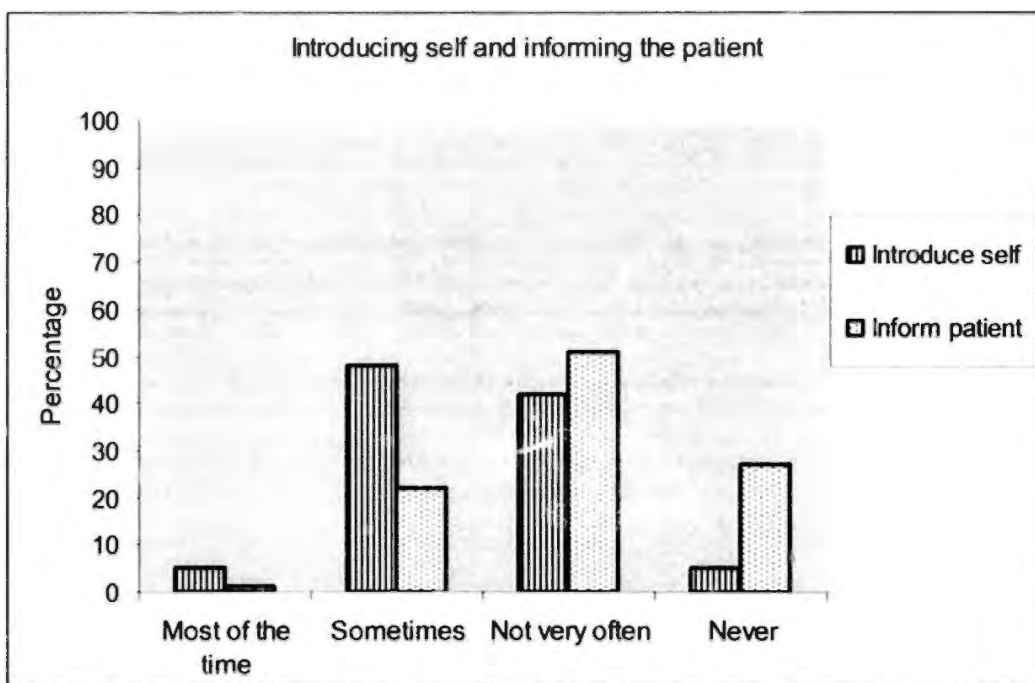
Figure 4.2. Introducing self and informing the patient

The following three questions on communication activities elicited by nurses at the patients' bedside were compared. They were if nurses called patients by name when

attending to them; if nurses engaged patients in social communication; and if nurses orientated patients to their surroundings. Two nurses (2%) reported they called patients by name most of the time and five nurses (6%) reported sometimes. The number of nurses who seldom and never call patients by name were much higher at 37 nurses (45%) and 39 nurses (47%) respectively.

Nurses did not frequently engage in "small talk" or social communication conversation (Johnson, Omery, & Nikas, 1989) when they attended to the patients. This was shown in the result where only three nurses (4%) reported they often engaged in this activity. There were 35 nurses (42%) who reported they sometimes engaged in social communication. On the other hand 41 (49%) nurses reported infrequent practice and four (5%) never practiced this activity.

Two nurses (2%) reported they orientated the patients to their surroundings most of the time, 26 nurses (31%) reported sometimes and 55 nurses (66%) reported seldom or never.

All the questions described above were related to nurses' communication activities and in all the situations described, a high proportion of nurses reported infrequently or not communicating to their patients infrequently or not at all.. The data are summarized in Figure 4.3.
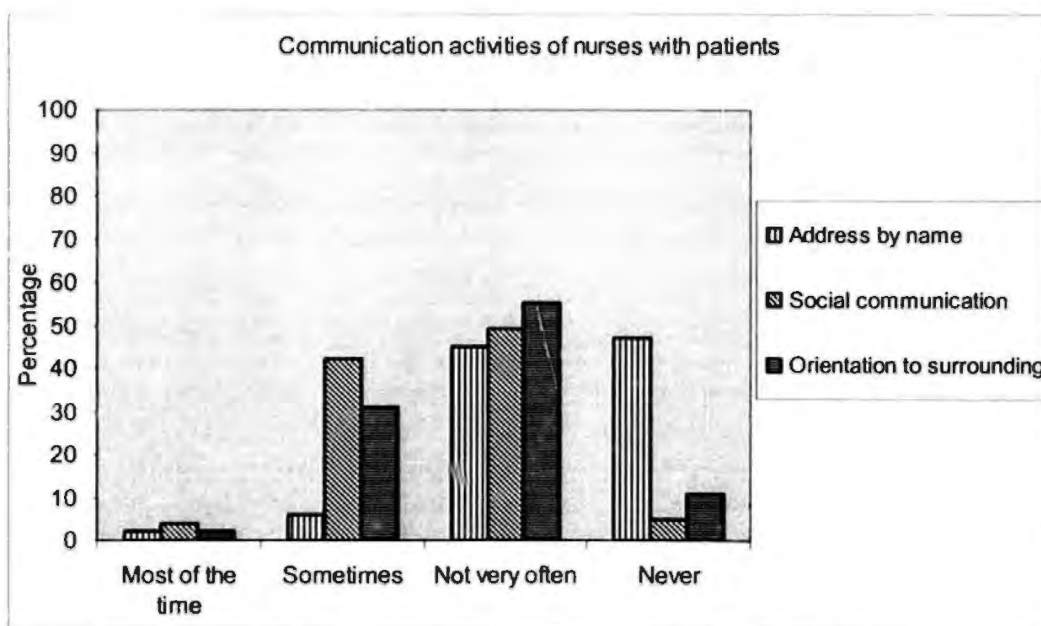
*Figure 4.3.*Communication activities of nurses with patients

Nurses' knowledge and views on ICU environment

The following questions sought information on nurses' views of the ICU environment. These included their working environment, stress level and level of noise. Forty three nurses (52%) reported not liking the working atmosphere and another five nurses (6%) reported they never liked the work atmosphere in the ICU. Another 33 nurses (40%) liked the atmosphere sometimes while two nurses (2%) liked the working atmosphere most of the time. Both of these nurses had more than 15 years experience in the ICU.

Although the majority of the nurses did not like the working atmosphere in the ICU, only eight (10%) said the ICU was stressful most of the time and they were the nurses with less than a year service in the ICU. Another 20 (24%) said it was not often very stressful and five (6%) reported the ICU is very stressful. These were reported from nurses who have served in the ICU for more than five years. A high percentage (54%) or 49 nurses reported they sometimes found ICU stressful.

Only a minority of nurses, four (5%), stated that noise levels in the ICU were high most of the time or sometimes. Another 50 (60%) reported the ICU was not noisy 'very often' while 29 (35%) reported it was not noisy. Figure 4.4 summarizes the findings.
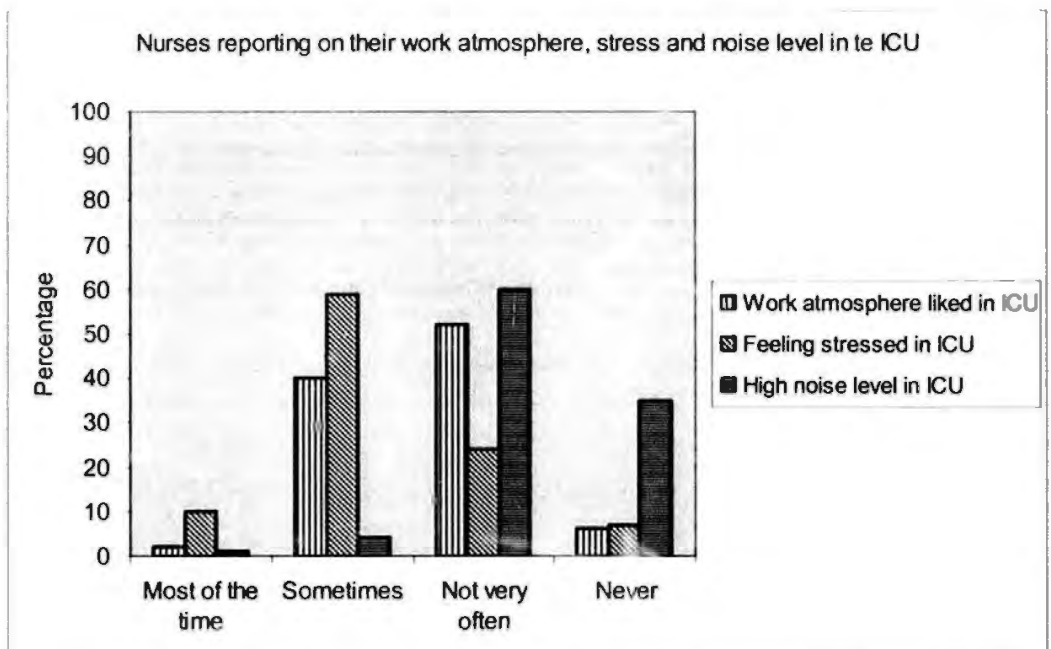
Figure 4.4. Nurses reporting on their work atmosphere, stress and noise level in the ICU

Another question asked how nurses rated the conduciveness of ICU for communication to occur between patients and relatives. Nurses were asked to designate a value of 1 to 5 with value of 1 being very conducive and value of 5 not conducive and a value of 3 being unsure. There were 42 nurses (50%) who reported the ICU was conducive for patients and family members to communicate while 18 (21%) reported it was not conducive. Another 23 nurses (28%) choose 3. The following Figure 4.5 summarizes this finding.
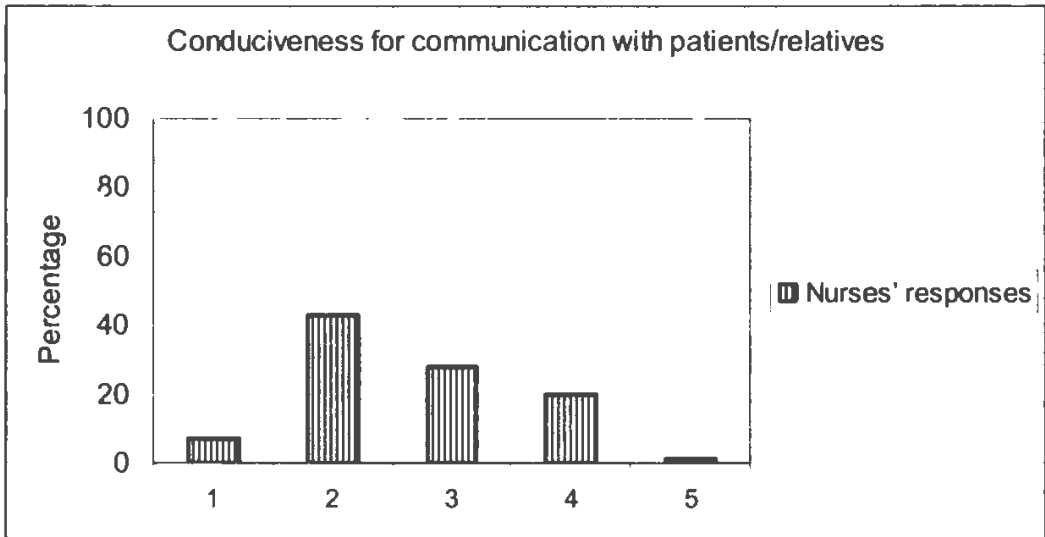
Figure 4.5. Conduciveness for communication with patient/relatives

As both the ICUs studied were general ICUs, a patient's admission was rarely planned and most of the time the staff had no time to mentally prepare the patients for their admission to the ICU. Pre ICU visits prepare the patient physically and psychologically on their ICU stay. A question was asked on the frequency of conducting a pre ICU visit for the patients in the ward. There were 82 nurses (98%) who reported conducting pre ICU visits although they vary in their frequency from all the time to not very often and one (2%) reported that she had never conducted such visits. The following Figure 4.6 shows the summary of the findings.
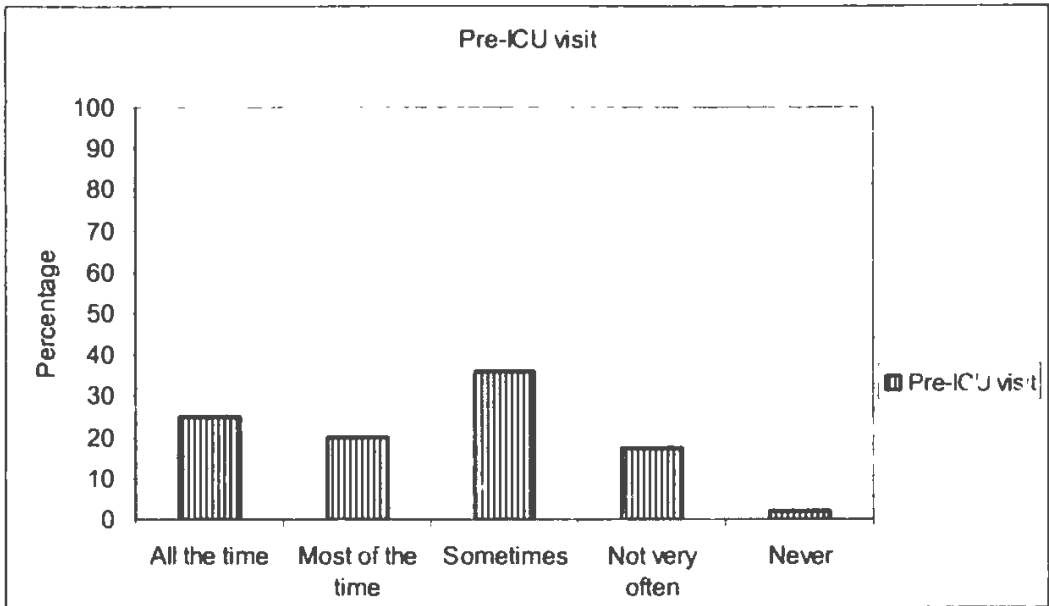
Figure 4.6. Pre-ICU visit

The nurses were asked if they believe unconscious patients were aware of their environment. Again they were asked to designate a value to show their preference. There were altogether 42 nurses (51%) who choose the values of 1 and 2 who believed patients were aware of their surroundings and nine nurses (11%) did not believe patients were aware of their surroundings. Another 32 nurses (57%) were unsure.

They were asked to rank the importance of communicating with unconscious/sedated patients using the same scale value of 1(strongly believe/ very confident) to 5 (strongly disbelieve/ not confident). The following results were obtained. There were 56 nurses (67%) who believed it was important to communicate with unconscious /sedated patients and eight (10%) believed otherwise. Nineteen nurses (23%) were unsure. These two questions showed there were more nurses who believed in the importance of communicating to unconscious patients although only 42 nurses (51%) believed unconscious patients were aware of their environment. The findings are summarized in Figure 4.7
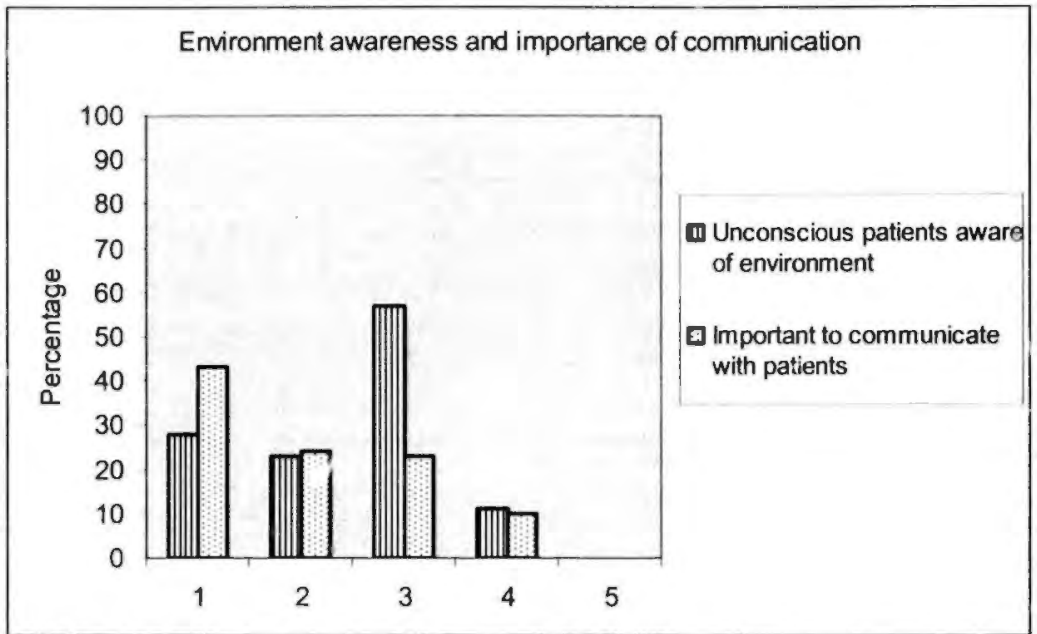
Figure 4.7. Environment awareness and importance of communication

Pertaining to the nurses' confidence communicating with unconscious or sedated patients, 47 nurses (57%) were confident about communicating with unconscious patients and six nurses (7%) were not confident. Another 30 nurses (36%) were unsure. Nurses were asked to report on their confidence communicating with family members. Fifty five nurses (66%) were confident communicating with family members and five nurses (6%) were not confident. The results are summarized in Figure 4.8
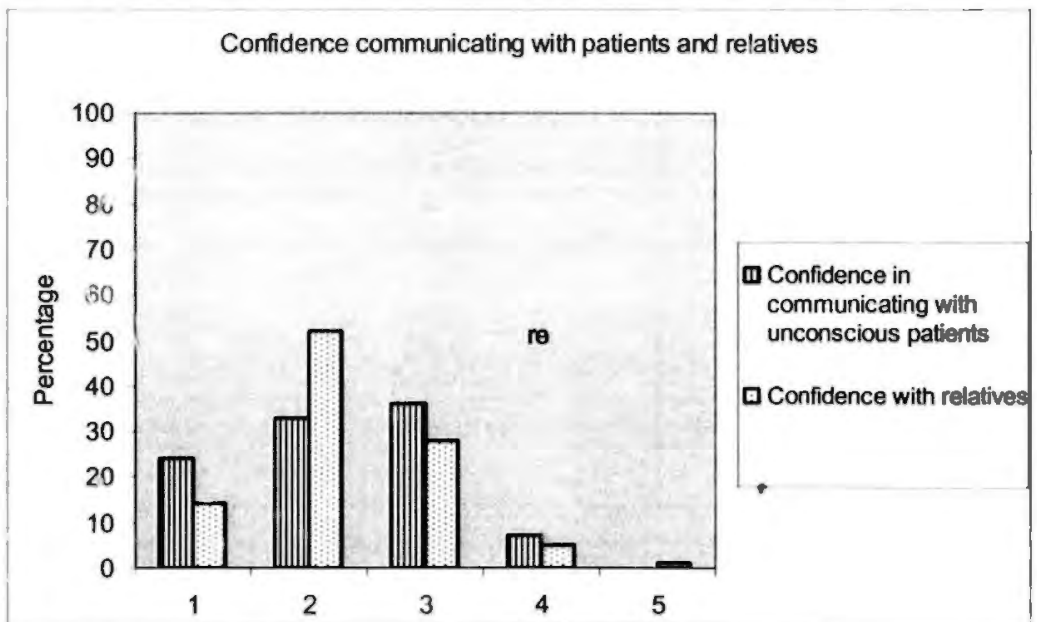
Figure 4.8. Confidence communicating with patients and relatives.

The final question sought clarification on nurses' perceptions of the adequacy of their communication knowledge for their daily encounters. Thirty nine nurses (47%) reported it was adequate while ten nurses (12%) reported not adequate. Thirty four nurses (41%) selected the middle value which demonstrated uncertainty about communication knowledge. Figure 4.9 summarizes the findings.
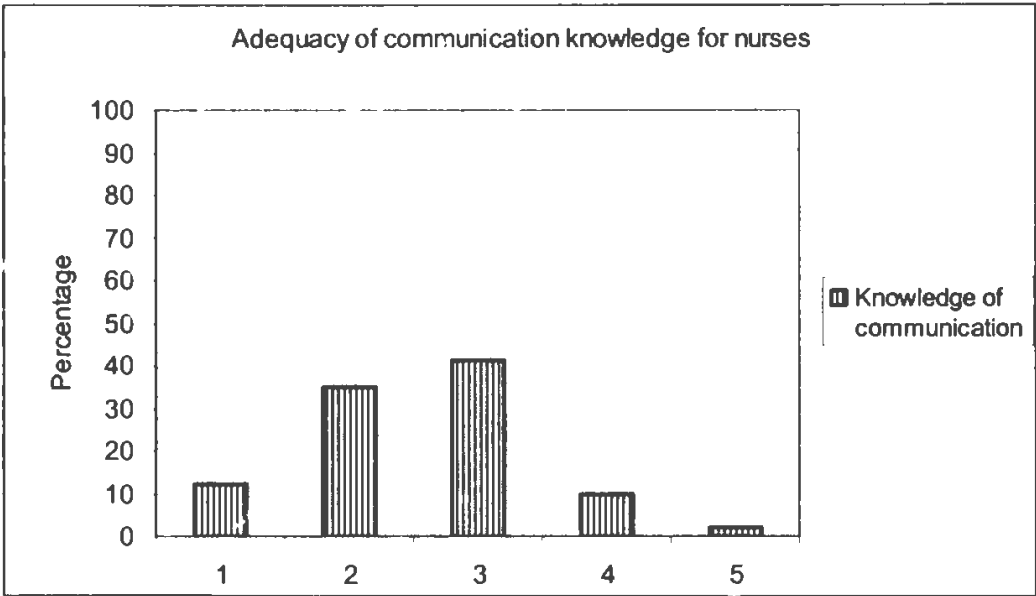
Figure 4.9. Adequacy of communication knowledge for nurses

4.2 Observation of nurses and ICU milieu.

Direct clinical observation of nurses' communication practices was conducted on 35 nurses including 21 nurses (60%) from Hospital A. Each observation lasted two hours and was conducted across all three shifts. The majority of observation periods occurred during the day as more nursing activities and communication were thought to take place at this time (McCabe, 2004). Data on noise measurement and nurse initiated patient interaction is described in this chapter. The qualitative interpretation of the clinical observations is described in the next chapter (Chapter Five).

Noise

Noise was measured on different shifts and during different activities. For Hospital A, noise measurement was carried out 13 times during the study period and 11 times for Hospital B. The noise measured ranged between 64 decibels (dB) during the night and 101.1 dB during the day in the ICU. The researcher made a distinction between the two ICUs as Hospital A was busier and bigger than the other Hospital B. For Hospital A

ICU, the highest noise measured was between the times of 0715hours to 1230hours with a range of 95.4 decibels to 101.1 decibels. Hospital B ICU recorded between 78 decibels to 99.4 decibels between these same time ranges. At 0930 hours the doctors usually did their rounds and nurses perform activities like changing ventilator tubes and other nursing procedures while the hours of 1230 to 1400 were visiting hours. In the early hours of the morning from 0100hours to 0700hours the range is 80 decibels to 90 decibels for Hospital A ICU and 64 decibels to 67.4 decibels for Hospital B ICU. The noise measured for monitoring machines like the ventilators and hemodynamic monitors was between 50-50 decibels. The noise level meter was placed 50 centimetres from the device measured. This noise was constant unless one of the alarms triggered which changed the reading to be about 90-100 decibels.

Hospital A ICU had more staff between 0700hours to 1700 hours. This included nurses, post basic students, doctors, support staffs and cleaners. Besides the shift duty nurses, the; were nurses on divided duty work from 0800hours till 1630hours. Nurses and staff on this unit were observed to speak loud where there were conversations between nurses from one cubicle to another. Table 4.6 indicated the ranges of noise levels in the two ICUs at different times.

Table 4.6

Measurement of noise levels

Hours	ICU A decibels	ICU B decibels
010C	95	64
0200	80	64
0600	90	67.4
0715	95.4	80.3
0930	98.4	85
1100	85	78
1230	101.5	99.4
1430	98	80
1845	98	80
Average	**93.47**	**77.56**
Range	**80 - 101.5**	**64 -99.4**

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The permissible noise level for industries stipulated by the Malaysian Factories and Machineries Act 1967 is 85 dB for a continuous period of eight hours. There is no ruling currently on the permissible noise level for hospitals as informed by the National Health and Safety Department (Abdullah, 2005). International standards stipulate permissible levels of noise for hospitals should be no greater than 40 dB (Stephens, 1995).

Nurses initiation of communication

The clinical observations also noted the opportunities for nurses to initiate communication with the patient and also if the patient initiated any communication with the nurse. Over the two hours observation periods, the researcher took note of the number of times the nurses attended to the patient and the frequency with which communication was initiated.

Out of the 35 two - hour observations, the researcher noted the following activities as listed in Table 4.7.

Table 4.7

Duration of nurse's activities during care

Activity	Duration of each activity	Total activities
Observations - check central lines, urinary bags	30 seconds	4
Observations - read from monitors	30 seconds	30
Change empty syringe pump	45 seconds	1
Administer intravenous drug	1 minute	1
Attend to patients – restless, alarms, check patients	1 minute	11
Attending to doctor's rounds	2 minutes	1
Changing patient's diapers	4 minutes	1
Wound dressings	5 minutes	2
Tracheal suctioning	7 minutes	2
Assist doctor with central line	10 minutes	1
Sponging of patient	20 minutes	1
Total activities recorded / (Total hours observation-70 hours)	**51 minutes and 45 seconds**	**55**

There were 12 occasions where the nurse did not attend to the patients at all during the two- hours observations. The hourly observations were carried out by reading off the monitoring devices and then recorded on the observation sheet. On one occasion, a nurse changed an empty medication syringe pump and this was done without checking or informing the patient who was conscious. There was no initiation by the patient to communicate to the nurse or from nurse to patient.

On average, nurses attended 1.6 times to the patient during the two hours observation. Nurse initiated communication occurred 16 times over the 70 hours of observation. This included informing the patient of an impending procedure and briefly explaining the procedure and to pacify patients who moved when a procedure was performed. Six nurses just approached the bed, gave a look around the patient, checked the intravenous line and moved away without any acknowledgement to the patients who were unconscious. Only with conscious patients were nurses observed to address the patient, either calling his/her name or just say she was checking out their status. All the six conscious patients observed opened their eyes for short periods only and most times closed their eyes.

Summary of the quantitative findings

This Chapter described the findings from the nurses' questionnaire and participant observation of nurses and ICU milieu by the researcher.

The questionnaires elicited information on the nurses' personal and professional profile. The majority of nurses participating in the study were Malay. Nurses below 30 years old comprised 60% of the participants.

Comparison of the results pertaining to communication of nurses showed that even though 56 nurses (67%) believed it was important to communicate to patients, only 47 nurses (57%) reported they were confident communicating to patients. On the other hand, 55 nurses (66%) reported confidence communicating to relatives. Yet only 39 nurses (47%) considered that they had adequate knowledge on communication.

Noise which was identified as a possible barrier to communication was measured at different times and the readings showed it was double the international standard for hospitals.

Observation of nurses' communication activities showed nurse-initiated communication occurred 16 times during the 35 two-hour observations and there was no initiation of communication by the conscious patients during those times. Furthermore, on average the nurse attended to the patient once or twice during the two hours. These encounters may or may not have been accompanied with communication. A detailed outline of the qualitative findings for the observation of nurses and the interview session is described in the following Chapter.

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CHAPTER FIVE

Qualitative findings- Phase One

This chapter describes the qualitative findings from Phase One of the study. The findings will be presented in two parts. A description of the Phase One observation of the nurses and the ICU milieu, and the in-depth interviews with the patients, relatives and nurses' focus group. Exact quotations from the participants have been extracted wherever relevant. Each quotation is extracted verbatim and labelled. The patients have a number assigned to the quote, for example Pat#1 means patient number 1. Similarly relatives are assigned a number, for example Rel#3 for relative number 3. The patients and relatives were from both the participating ICUs. All the participants consented to the interviews.

The following shows the legend for citation of the quotes:

Pat# - patient (Pat#1 - Pat#21)

Rel# - relatives/family members (Rel#1 - Rel#23)

The nurses observed during the participant observation were coded and assigned a number and letter of the alphabet. The letter designated the ICU of the hospital they were from with 'A' being Hospital A and likewise with 'B' for Hospital B. They will be identified as

Nurse#A – nurse from ICU Hospital A (Nurse#1A- Nurse#21A)

Nurse#B- nurse from ICU Hospital B (Nurse#1B -Nurse#14B)

There were eight focus groups of nurses interviewed and they were numbered as a group and assigned an alphabet of 'A' or 'B' to designate the ICU of the hospital where they worked. There were five (5) groups from Hospital A and three (3) groups from Hospital B.

Nurses who consented to participate in the study was designated a number based on a names list which was then kept separate to ensure confidentiality. The list was used only as a guide to later follow up these nurses in Phase 3 of the study.

As reported in Chapter IV, there were 35 nurses observed in the study. There were also 21 patients, 23 family members and eight nurse focus groups attended by a total of 40 nurses who participated in the group interviews. Qualitative data compiled from the

observation of nurses and ICU milieu and transcripts from the interviews were explored, coded and analysed using the NUD*IST (QSR5) computer software program designed for qualitative data analysis.

5.1 Phase one nurses' observation and observation of ICU milieu

In Chapter Four, the researcher has described the findings related to nurses' initiation of communication to patients and the nursing activities that occurred. The quantitative aspect of noise measurement was also described. This chapter further described the observation of nurses and the ICU milieu, which will again focus on the communication activities between nurses and patients, and the barriers to communication that impede communication.

Each observation lasted two hours and the researcher used an observation schedule to record all observed activities (see Appendix 6). During the two-hour blocks of observation, the researcher was able to closely observe nurses whenever they attended to their patient.

The majority of nurses observed were 32 Malays (n=32, 91%). There were two Indian nurses (6%) and one Chinese nurse (3%). The observation was conducted on all shifts with the majority in the morning and evening shifts. The patients observed were from a range of ethnic groups and the majority were males (n= 26, 74%). Almost three quarters of patients, 26 (74%) were unconscious, with six (17%) conscious and three (8%) were semi conscious. Some patients were observed twice, as the nurse who cared for them on other days was different.

Communication activities of nurses

Nurses were observed on their communication activities each time they attended to the patient. There was no difference in the amount of communication by nurses to patients on all the three shifts observed – morning, evening and night. McCabe (2004) on the other hand reported that the nurses communicate less during the night shift. Among the communication activities of the nurses were calling the patient by name; informing them what procedures were due; why the procedure was needed and reassuring the patients if they were restless. Ten nurses (28%) did not communicate to the patients at all during the two hours observation. This was congruent with the findings in Chapter Four where 27% of nurses reported they never communicate with ICU patients. Two of

these nurses performed nursing procedures including tracheal suctioning and administering intravenous medication. The patients were unconscious. Another nurse did not communicate with the family members who were present by the patient's bedside when she administered the intravenous medication during visiting hours.

An analysis of the interview transcripts and demographic data showed that the nurses who called the patient by name before informing them of the procedure were those with more than five years service in ICU and had ICU training. Their experience and confidence may have contributed to their willingness to communicate with the patient. This was also reported by Bergbom-Engberg, Hallenberg, Wickstrom, & Haljamae, (1988) who found that nurses with more experience were less intimidated with their patient in the ICU compared to less experienced nurses who were still grappling with their knowledge deficit with ICU care.

In contrast the less experienced nurses were observed to communicate more to their colleagues assisting them or other medical staff on the unit who were with them performing a procedure or during nursing/medical rounds.

Nurses' interaction with patients

The observation results reported in Chapter Four revealed that nurses attended their patients once or twice during the two hour period of observation which amounted to a total of 55 episodes of care. This was to perform a nursing activity, check observations or administer medication. There were few nursing activities encountered during the researcher's period of observations. Major procedures like sponging the patients were carried out during the night shift. Among the nursing activities observed were changing wound dressing, tracheal suctioning, changing soiled diapers, emptying urine bag and assisting the doctors with central line insertion and intubation.

Checking of the patient's hemodynamic observations was done by reading off the monitoring devices; the nurse then charted it on the observation sheet and moved away from the bed. These observations included pulse rate, blood pressure and respiration rate. There were 12 (34%) two-hour observation periods during which the nurse only checked the observations and recorded them. The patients' condition was stable and they did not require any nursing intervention during the two hours observation. If a

medication administered through a syringe pump had finished, the attending nurse replaced the empty syringe with a new one recorded it on the patient's notes and left. Nurses did not stay within the patient's bed unit when there were no nursing activities required. Rather, they assisted their colleagues or performed other non-bedside nursing duties. These duties included checking drugs for patients, filling requisition forms, tracing laboratory results and answering phone calls or having their breaks.

Prior to a nursing activity, 16 (46%) nurses communicated with the patients. Out of these 16 nurses, five nurses (31%) called patients by their names and tapped the patient's hand while informing the patient of the impending procedure. Another two nurses (12%) informed the conscious patients of the procedure to be performed and what to expect from the procedure. Seven nurses (44%) simply informed the patient a procedure was to be performed. Another two nurses (12%) reassured the patients as the patients moved when the procedure was performed. These communications occurred on both conscious and unconscious patients. The Table below summarizes the nurses' interaction with the patients.

Table 5.1
Nurses interaction with patients

Interactions	Nurses	Percentage
Explain procedure	2	12
Reassure patient	2	12
Call patient by name	5	31
Alert to procedure	7	44
Total	**16**	**100**

Contents of the nurses' communication

Although 16 nurses (46%) in the study communicated to the patients as stated above, the contents of communication were very brief, lasting from three to ten seconds and related to procedural matters.

The following quotes demonstrate the brevity of the communication.

Nurse#13A

" Uncle, I am going to change your dressing." (three seconds)

90

She proceeded to change the wound dressing without any further communication until the procedure was over. It should be noted that the titles "Uncle" and "Aunty" when translated from the Malay language are respectful and polite terms applied to an older man and women.

Nurse#17A took three seconds to inform the patient on the sponging procedure
> *"We are going to clean you up, okay!"*

The findings of this observation was congruent with findings by others (Ashworth, 1980; Borsig & Steinacker, 1982; Crotty, 1985; Hagland 1988; Bergbom 1993; McCabe 2004) that nurses generally only communicate on task and procedural matters to patients. In addition, Ashworth (1980) also reported the nurses attended to their patients frequently. This frequency contributed to the many short communication activities she identified in her study. This was not observed in this study as the nurses on average attended to the patient only twice during the two hour observation period.

If the nurse had developed a rapport with the patient, the communication content was more lasting, up to one minute in duration. This was observed in the case of a young male who had been in the unit for 63 days. The attending nurse informed him on current events including the news of the day. He could only respond by blinking his eyes. This communication only occurred when the nurse checked on him after taking over from the night nurse. During the remaining observation time the nurse was assisting her colleague with other chores and did not return to the patient. Even though the patient was able to respond using non-verbal communication, the nurse attending to him did not spend any more time communicating with him.

Opportunities for communication

As was stated earlier, the nurses attended to the patient infrequently and thus there were few opportunities for the nurse to initiate any communication. Also, there were instances where the nurses did not initiate any communication when they attended to the patient as mentioned above. Whenever a communication did occur it was procedural and brief. This in turn left very little opportunities for the patients to reciprocate and initiate any communication. As the patients were mostly unconscious or drowsy they did not respond. Even the conscious patients did not attempt to initiate any communication with the nurse. They merely watched whenever the nurse attended to

them. They may have been exhausted or still too weak to take any interest in what happened to them or were still influenced by sedative medication.

Non verbal communication

The observation of the ICU milieu included observing the practice of non-verbal communication by nurses. Nurses who communicated with conscious patients maintained brief eye contact with them, such as when a procedure was discussed, but for the majority of nurses who communicated with unconscious patients there was no eye contact or other non verbal communication like touch employed. Touch may have been considered taboo for religious reasons among the majority Muslim nurses, and for cultural reasons even among the non-Malays. Asians do not favour touch (Subramaniam 2005) among non family members and this could be the reason why nurses avoid touch in ICU. The use of basic sign language as a form of communication was observed once by the researcher on a long-stay patient in the ICU of Hospital A.

Other variables that can impact on communication like noise and lighting were noted and described. Noise measurement has been discussed in the last chapter and in this chapter the sources of noise are described.

Sources of environmental noise

Noise was recorded from the patient monitoring machines, the air-conditioning, staff conversations, movement of heavy machines and trolleys in the unit, and ringing of telephones. Certain monitoring devices emitted consistent noise which was not considered high (50-60dB) by the Malaysian Factories and Machinery Act ("Factories and Machinery Act 1967(Act 139) & Regulations and Rules," 2001) but considered high by the International Standards (Stephens, 1995) where the permissible noise level in the ICU should be between 25dB to 45 dB. The alarms recorded 100 dB when triggered, but lasted for a short while as they were attended to promptly. Another contributor to continuous noise was from the control room for the air conditioning in Hospital A. The room was located parallel to cubicle 3 (see diagram of unit in Appendix 14) and this noise contributed 85dB when it was measured with the door closed and 95dB with the door opened. As mentioned earlier, this unit was renovated from a ward, where normally there is no air-conditioning.

Staff communication was another contributor to noise. Staff included doctors, nurses and other paramedics such as post basic nursing students, the medical assistants, physiotherapists and radiographers. On days when post basic students came to the unit in Hospital A for their practical training the unit was packed with staff and the noise level was high (95 dB to 100 dB) during the morning till about noon. It was observed that nurses communicated more to their colleagues and sometimes communication occurred from a nurse in one cubicle to a nurse in the next cubicle. Since the staff on Hospital B only comprised the nurses and doctor on duty, noise levels in this unit were noticeably lower (66 dB to 80 dB).

Other sources of noise were from the cleaners who came to change the bins in both the units. The metal lids were noisy when released and it was also noisy when the cleaners opened the plastic bags to fix them to the bins. The cleaners only came once at each shift and their presence was for a few minutes. When the cleaners vacuumed the floor the noise made was continuous for about twenty-five to thirty minutes. When portable x-ray was required, the machines had to be moved from outside the unit and these movements made a lot of noise. Portable x-rays were frequently requested in the unit. Besides the heavy x-ray machines, the movements of trolleys also contributed to the noise level. They were all of short duration. Ringing of the telephones with conventional ringing tone contributed to noise in both ICUs as the phones rang very often. Hospital A had three phone lines and Hospital B had only one.

Environmental lighting

Each of the two hospitals had different system of lighting. The lighting in the ICU of Hospital A was such that each bed had a light over it and an individual switch so that it could be turned off when not required. Besides that the unit was lit by fluorescent lamps, which can be switched off or on according to the cubicles required for use. It was noticed that during the day till evening at about 2100hours, all the lights were on. From midnight, only very ill patients had their lights on. The central lights of the unit remained on all through the night.

In Hospital B the lights were controlled by two main switches. There was one switch for each side of the unit with no individual light switch for the patients. During the night, only the side of the unit where the nurses' station was located had the lights off, while the lights over the patients were kept on all night.

Other variables observed in the ICU units were the nurses' absence in the unit during visiting hours. At this time the nurses took turns to have their break, leaving minimal staff on the unit. This sometimes caused inconvenience to relatives who wanted to ask about the patient's condition. Some relatives did not know which nurse was assigned to the patient, making it difficult for the relatives to enquire about the patient. It was also observed that nurses did not approach the relatives to voluntarily inform them of the patient's progress. It was always the relatives who approached the nurses. Even when relatives managed to talk to nurses, the enthusiasm of the nurse to talk about the patient's condition was minimal and sometimes conversation occurred on passing with the nurse moving as she talked.

Summary of the observation findings

Regardless of the shift of duty, the communication activities of the nurses did not show that the time of day influenced the amount of communication they had with the patients. Nurses with more experience were observed to have provided the patients with more detail on the procedures performed, but the contents were brief and related to procedures only. Even though there were opportunities for nurses to communicate during procedures, this did not occur as there were not many procedures due and hourly observations were read off the monitors.

Out of the 55 times nurses attended to the patients during the observation periods, only 16 times were nurses observed communicating to the patient. The duration of these communications was three to ten seconds. One nurse did not inform the patient even though tracheal suctioning was to be performed. On other occasions nurses just checked the observation from the monitoring devices without a single word to the patient. Although there were opportunities for nurses to communicate to the patients when they attended to them this was not practiced. Likewise the conscious patients did not initiate any communication with the nurse when being attended.

Nurses were not observed using non-verbal communication like smiling, eye contact and touch with patients who were mostly unconscious and semi-conscious. The presence of high technological equipment displaying the necessary observation parameters to be read off and alarms that signalled a need for attention had nurses attending to the machines rather than to the patients. The many other functions

performed by nurses like assisting their colleagues took them away from the patient's bedside that was considered being taken care of by the machines attached to them.

Opportunities to communicate with relatives during visiting hours were restricted due to staff taking their breaks then, and remaining staff were busy with their chores to attend to relatives. The participant observation also included the observation of the ICU milieu which looked at potential barriers impeding on communication, such as noise and lighting for which there were no significant contribution to the communication activities.

5.2 Interviews

Another method employed by the researcher to gain further information and explore the communication experiences from the participants was the use of in-depth interviews. Three sets of interviews were conducted in Phase One. They involved the patients, relatives and nurses in focus groups. The participants gave their consent prior to the interview. The interviews were recorded on tape and it was later transcribed and translated into English by the researcher.

The patients' and relatives' interviews were analysed separately after they had been divided into their respective groups. Outlined below are the results from the interviews.

Patients' interviews

The recruitment of the patients was as described in Chapter Three. There were 21 patients interviewed and they were of mixed ethnic group with males being the majority. They were interviewed at the bedside after transfer out of ICU at a time when the doctors had finished their rounds. Permission from the unit manager was obtained and the researcher explained the interview process to the patient. Consent was signed when the patient agreed.

A semi-structured interview format was used (Appendix 8). The interview began by exploring the patients' memory of stay in the ICU.

Memory of ICU stay

Patients were questioned about their memory and experiences during their stay in the ICU. There were five patients (24%) who could not remember their ICU stay at all, 12 (57%) remembered the time just before being transferred out of the ICU while the other

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four (19%) remembered because they were conscious and remained in the unit for a few days.

Those who remembered very little were not certain that what they remembered was real or just their imagination. They vaguely remembered nurses calling their name, voices of people talking and one patient said he remembered he had been all *"wired"* when he was there.

The following quotations were those with no memory of ICU stay and those with little memory.

Pat#15

> " *There is nothing that I can tell you because I cannot remember at all. Cannot remember. Really cannot remember. Not to say that I do not want to tell, but I cannot remember."*

Pat#20

> " *Ah…… initially I do not remember anything. But when I am conscious ,Alhamdulillah* (Praise to Allah), *I can remember."*

A 19 year old female patient who was conscious for two days in the unit remembered her stay but could not see her surroundings because she was lying supine. She could hear nurses talking. Another female patient who was diagnosed with Myasthenia Gravis was conscious during her stay in ICU while being ventilated. She had previous admissions to the ICU and described her stay as pleasant and commented that the doctors and nurses were *"nice and friendly to her"*. When asked what she meant by "nice and friendly", it was the way nurses talked to her and she was not lonely. The nurses called out to her each time they passed her bed. Although she could understand them, she was not able to reply as she was intubated and she depended on pen and paper to communicate. She would have liked the nurses to sit and communicate more to her, but they appeared busy.

An early study by Bergbom-Engberg & Haljamae (1988) found that more than 70% of the patients studied remembered their ICU stay. They were interviewed within six months after their stay in ICU. In this study, although the patients were interviewed 12 hours post discharge from the ICU, their memory was minimal and 24% had no recall at

all. Sedation with midazolam, which was used on most patients, causes short term memory loss which may have contributed to a lack of recall (Hirshman, Passannante, & Henzler, 1999).

Patients' satisfaction with nurses' communication

The next question explored the patient's satisfaction with the nurses' communication. Thirteen patients (62%) said they were satisfied with their communication with nurses while the remaining eight patients (38%) stated they were not satisfied. The researcher asked them to clarify what they meant by satisfaction with the communication and they explained that this was when nurses told them they are 'better' and spoke 'softly' to them. From the researcher's experience as a registered nurse and educator, nurses in the public hospitals were generally described as unfriendly by patients, and reports made public by the Health Minister (S. L. Chua, 2004, 2005) also mentioned similar complaints. In this study, when a nurse smiled, answered questions and was polite, this was perceived as being 'nice and friendly'. The following quote reported what the patient felt about the nurses.

Pat#21

"... satisfied with their soft spoken words and ways."

Although the above quote does not express explicit views on communication, it demonstrates the grateful attitudes of patients to their carers. They added that they did not expect very much from the nurses as the nurses were busy people. For as long as they (patients) were safe and in good health they were happy.

In contrast there were eight patients (38%) who were not satisfied.

Pat#10, a 19 year old female said

"Only a little bit I was satisfied. Most of it not satisfied. Like when I called them they were angry. They move up and down and when I call them they are angry. They said wait a while."

Other patients who expressed dissatisfaction with the nurses' communication reported the lack of communication, especially after they gained consciousness. These patients described their situation as half awake and half asleep and wished for nurses to continually remind them of their location so they can be aware of their surroundings.

Further to their responsive comments on communication, patients were asked if they would describe the ICU environment in relation to the noise and lighting and their effect on communication.

Patients' comments on environmental factors

Noise and lighting are the main environmental factors which may impact on communication (Chew, 1986; Gelling, 1998). It has to be considered that comments on noise may be subjective, depending on the person's physical and emotional health as well as their experience with noise. Generally, noise is considered as something that assaults the hearing and causes discomfort when people are exposed to it continuously (McLaughlin, McLaughlin, Elliott, & Campalani, 1996). The frequency tolerated by one person may not be agreeable to another. The clinical status of the patient may contribute to whether the patient is more aware of noise or vice versa.

There were varying responses to noise with some patients saying that the unit was very quiet to those who said it was noisy and one who cannot remember any noise at all. Eighteen of the patients (85%) said noise did not affect their communication and was not a problem. As mentioned earlier, this can be a subjective matter as the majority of the patients were conscious for a few hours in the ICU and then transferred to the wards.

Two patients (10%) said the unit was noisy and disturbed their sleep. The causes of noise were nurses talking among themselves, the air conditioning control room, alarms and movements of equipment. There were four patients who described the lighting as bright and one of them, Pat#3, said it was bright at night while the other three said it was bright all the time. These patients were conscious overnight in the unit. Others commented the lights were alright and gave no other comments. Although the environment affected the mentioned patients' sleep and comfort, it did not affect their communication.

Patients' comments on language

The patients said language was not a problem in communicating with the nurses. This was despite the multi-ethnic group of nurses and patients participating in the study. Even in cases where the Chinese or Indian patients could only speak a little Malay, they

said their relatives were always around to assist in translation. They felt there was no need for them to communicate to the nurses during their stay in the ICU as all communication was handled by their relatives. The patients reported that most times they encountered Malay nurses which were reflective of the number of Malay nurses on the unit.

Patients' recommendation to improve nurses' communication
When the researcher asked for any recommendation the patients would like to suggest to help improve the nurses' communication, they were very forthcoming with their views.

One common view shared by 20 of the patients (95%) to improve nurses' communication was the need for nurses to disclose more information regarding the patient's condition and treatment. They suggested that nurses should communicate more than the customary explanation, informing them of the reason they were in ICU, their daily condition and progress. This enabled them to understand their condition better and be less apprehensive with any unexpected outcomes. They conceded their ill condition in ICU and they did not rule out the high mortality rate, but if nurses encouraged them through communication, it would positively impact on their morale.

The patients added that nurses should also be more caring, spend more time with them, give assistance when needed and repeatedly inform them as they forget easily due to the sedatives. Other areas patients like nurses to include in their communication were information on time of the day, call bells available and nurses to introduce themselves to the patients. One patient suggested that nurses talk less at night. All these recommendations suggested that patients wanted more than the customary smile and friendly nature of the nurse.

Some of the patient's quotes were

Pat#7

> *"A...like that, they never tell me about my illness, why I was there and what was my condition. They never tell me about my current condition. I hope they will tell me."*

Pat#11

> *"Nurse must talk more, tell us about our condition so that we feel better. Ask them to talk more and come and see the patients often."*

Pat#13

> *"If possible, let the nurses be friendly with patients so that the patients have more courage. They talked among themselves. There was one time they were cleaning my wound and it hurt so much, but they were just talking among themselves. They sometimes did their job in an easy manner."*

In summary of the patients' interview, they considered communication as an important link to their wellbeing and wanted nurses to communicate and pay more attention to their needs. Nurses were friendly but still lacked communication especially on divulging information on the patient's progress. In particular were the conscious patients who were not sure where they were and why much equipment surrounded them. They said they were confused sometimes and if nurses kept reminding them, they would be more accepting and their anxiety would be eased. This finding was also reported by Green (1992) and Leathart (1994).

Relatives' in-depth interview

There were 23 relatives interviewed. The relationship of the relatives to the patients included two (7%) husbands, 13 (57%) wives, four (17%) mothers, two (7%) fathers and two (7%) siblings. Their ages range from 18 to 55 years old and the patients had been admitted between one to three days to the ICU. The relative who spoke in English worked in the Department of Information Technology, one husband worked with the Ports Authority and another was retired. The wives were all homemakers. The other relatives worked with the private sector or had their own business.

Just like the patient interviews, the questions were based on a semi-structured questionnaire prepared as listed in Appendix 9. The relatives were more vocal and were more responsive to the interview session. The researcher communicated in Malay as agreed by the relatives with the exception of one who spoke in English. The demographic data for the relatives were presented on page 61. All participants were provided with an information sheet and completed a consent form prior to participating in the interviews.

The relatives were questioned on their satisfaction with communication with the nurses.

Relatives satisfaction with nurses' communication

There were eight relatives (35%) who reported that they were satisfied with the nurses' communication in answering all their questions. Nurses were not angry with relatives and looked after the patients well. The relatives were grateful of the nurses' care to the patient, and considered them to be the expert in nursing the patient who was critically ill with all the life-saving gadgets attached to them. They felt helpless when they saw the condition of the patients all connected up to life-saving machines, that patients were totally dependent on nurses to care for them and tell them what is happening.

The relatives who were dissatisfied with the nurses' communication gave the following responses.

Rel#17

> " That's why, they should know about the patient and be concerned about
> the patient so that they can tell the family members what they should do. But
> they were not concerned at all. When we tell them something also they pretend
> not to hear. To ask, we do not know which nurse is on duty."

Rel#1

> "The nurse should be able to tell me more detail. Like just now, when I ask her
> she ask me to speak to the doctor for more details"

Rel#16

> "Not satisfied. There are some who do not give satisfactory answer. By
> right the nurse should be able to tell me more detail. Sometimes when I ask,
> they more often ask me to ask the doctor for more details."

This father was unhappy with nurses' communication even though his son had been in the unit for 63 days.

Relatives' opinion about lack of information provided by nurses

All relatives reported they had to ask nurses for information and some nurses gave short answers with no further explanation. The only information given voluntarily was on admission to ICU when the nurses explained the ICU procedures of visiting and gave relatives a brochure on ICU protocols. The patients' condition on admission was explained by the doctor, and usually in the absence of nurses. A statement on the

dangerously ill list (DIL) is used to inform to all patients' relatives regardless of the patient's condition and they were required to sign acknowledgement in the patient's progress notes. Nurses who were present when the doctors explained the DIL to the relatives may have reinforced the information if they were asked by the families. It was standard procedure in the ICU for doctors to explain to relatives that the patient is on the DIL. This prepared the family members for any unexpected event like a death of the patient.

There were 21 relatives (91%) who wanted nurses to be more communicative, voluntarily offer information on the patient's condition in simple terms, and explain the status of patients. These relatives said,

Rel#2

> "By right they should tell us, our daughter is like this like that.
> They did not. They pace up and down the unit and never tell us anything, just
> do what they like. If we don't ask, they leave it be."

Rel#11

> "If possible, if they are asked right, give good explanation. Don't say
> auntie, auntie ask the doctor yourself like that, there is one who said
> auntie ask the doctor on Monday."

Rel#1

> "They were busy doing their work and I would have to ask them. Was there
> any response and how come she's having all this wet cloth on her?"

Relatives wanted nurses to give information on the patient's condition without referring to the doctors as doctors were not around most times. Nurses on the other hand were in the unit and accessible to the patient all the time. This relative expected the nurse to inform her of the patient's condition considering that all notes and observation findings were available on the patient's charts and a nurse was assigned to each patient.

Rel#1

> " she could have told me earlier as all her charts are in front of them. Because
> one nurse is dedicated to one patient right? That is what I know."

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When asked if relatives felt the information given was sufficient, fifteen relatives (65%) said it was not sufficient as they wanted more explanation on what happened to the patient, their condition, the medication and what is planned for them. They wanted to be informed of the current development of the patient's condition, without asking for it as they do not know what to ask. These relatives reported that nurses lack communication and knowledge, citing that if they asked nurses a lot of questions, they would always refer the relatives to the doctor.

Rel#1,

> *"... there are times when they refuse to answer question. Yes and then they ask me to communicate with the doctors. You cannot find the doctors."*

Rel#10

> *"Give explanation to relatives. Some just keep quiet. Some will only tell when asked."*

Rel#5

> *"... if the nurses, they do not know very much. They only tell what they know. Anything more they ask to speak to the doctor."*

Relatives' opinion about the ICU environment

According to the relatives, the ICU environment was quieter than other wards they had been on and the lighting was adequate. The noises were mainly from the nurses and doctors talking, which some said did not occur very often.

There were ten relatives (43%) who commented that the unit was noisy during visiting hours or when many staff were on the unit. The noise was from staff communication with each other. The machines were noisy when the alarms were triggered, but the noise lasted for a short period of time due to prompt attention by nurses.

One relative, Rel#6, commented the following.

> *"There is no noise. It is quiet. We do not want to complain."*

This relative was caring for her mother-in-law and was very grateful to the nurses because when her mother-in-law was brought in, she was very ill and at the time of

interview her condition had improved. Throughout the interview she kept saying she was grateful to the nurses and did not want to complain.

A plausible reason why relatives said the unit was quiet was they were not in the unit all the time. The relatives may also be blunted to any sound in the unit as their main concern then was the condition of the patient. There were no comments on the lighting as all of them reported lighting was adequate.

Relatives' communication with patients

Most relatives reported they communicated with the patients and they spoke to the patient without being asked by nurses. They were not afraid of the sight of wires and monitors surrounding the patient as they had heard that ICU is a critical place and patients will be attached to many life-saving devices. This did not deter them from communicating with the patient. There was a wife who said initially she was afraid to see all the wires connecting her husband to different machines as her husband was fine before admission to ICU, but when she saw him she spoke to him on the assumption that he could hear.

Rel#18

> " When I wipe him, yes I want to give him moral support. Maybe he can hear."

Relatives of conscious patient said they used sign language or written communication as the patient was still intubated or wearing a facial oxygen mask.

Relatives' suggestions to improve communication

At the end of the interview session, the relatives were asked to suggest any recommendations to improve nurses' communication. Twenty relatives (87%) proposed nurses should communicate more to them (relatives) as they were constantly with the patients and were therefore aware of the patient's situation as compared to the unconscious patients themselves.

The recommendations proposed by the family members included that nurses show more concern and caring to the patients, talk more and give more information and inform family members voluntarily of the patient's condition or progress. The relatives were happy and grateful that nurses were friendly and tolerant when they asked many questions but they said it would have been much better if nurses acknowledged their

presence and voluntarily informed them of their family member's situation. Most times they were not sure of what to ask the nurses pertaining to the patient's condition.

As family members were more observant than the patients they proposed other pertinent recommendations that they hoped could be implemented. This included availability of call bells, especially for conscious patients who need to call for a nurse. In the two ICUs studied, there were no call bells in the unit. Nurses said they were always around to attend to the patient and there was no need for the bells, yet there were conscious patients who reported nurses did not come to them often and it was difficult for them to attract the nurse's attention. The researcher observed nurses were not always at the patient's bedside, and even less so if the patient was conscious. They attended to other chores as mentioned earlier or assisted colleagues. Conscious patients in one of the ICUs studied were placed in the cubicle further away from the main nurses' station and only very critically ill patients were placed in the cubicle nearer the nurses' main station. Although this action was justified in ensuring patients with the greatest physiological needs were able to be more closely observed, it did not enhance the communication process for patients regaining consciousness.

Visiting hours was another issue highlighted. Although this might not be directly related to communication, the researcher felt that it could contribute to feelings of dissatisfaction which might affect the way relatives relate to nurses and vice versa. Concerned relatives always wanted to look in at the patient to reassure their feelings. When ICU enforced strict visiting hours as practised in other units of the hospitals, relatives might express their displeasure through unpleasant remarks as mentioned by a mother who was reprimanded by the nurses each time she came in to peek at her daughter. This same mother commented negatively about the nurses' communication and said nurses were not caring.

Two of the relatives interviewed were satisfied with the nurses' current communication citing the information was adequate for them to hope for the best for the patient. Another relative, who was anxious for his father, did not want the nurse to inform him more as he feared for any negative information given. His father was very ill suffering from carcinoma of the liver.

Nurses' focus group interviews

There were eight groups of nurses interviewed with a total of 40 n··· participating. Each group had a minimum of four nurses and a maximum of six nurses. The number of years experience in ICU for the staff interviewed range from a few months to 5 years. Though it was a mixed racial group, more than 80% of the nurses were Malays. There were an equal number of nurses (50%) with less than five years ICU nursing experience compared to those with more than five years ICU nursing experience.

The nurses were responsive to the questions asked, but their answers were mainly short and needed prompting in the early phase of the interview. Like the patients and the family members, the nurses warmed to the interview later and gave their accounts of their experiences. The researcher used probing questions to encourage the nurses to expand their information. Nurses communicated in Malay except for a few who spoke in English and Malay. The questions posed to the nurses were based on a semi structured questionnaire (Appendix 10). The responses were transcribed and grouped into major headings for discussion. This was done manually. All the nurses who participated in the interviews had consented to participate in the study.

Nurses' satisfaction with communication

Nurses were asked to comment on their satisfaction with communication. There were varied responses with reference to relatives' and patients' communication. Three groups of nurses reported satisfaction (GroupNurs#B7; GroupNurs#A6; GroupNurs#A4) when communicating with relatives and answering their questions and reported having less communication with patients. Another two groups of nurses (GroupNurs#A1; GroupNurs#A5) were dissatisfied with their communication with the patients due to the unidirectional mode as most of the time the patients were on a ventilator and unconscious. Two other groups (GroupNurs#B8; GroupNurs#B3) reported their communication with the patients depended on the patient's condition. In conscious patients, more communication took place.

Some nurses from GroupNurs#B3 reported that the communication they had with the relatives exceeded that of the patients. There was minimal communication with the patients because as soon as they were conscious, they were transferred out of the unit. Nurses from GroupNurs#B8 said that communication to conscious patients occurred

mostly during the day. At night they did not talk but observed the patients, and if patients showed signs of restlessness, they reassured the patients and told them to go back to sleep. This was congruent with the study by Ashworth (1980) where she reported that conscious patients received more communication than unconscious patients. In Ashworth's study, the nurses provided elaborate explanations and performed social communication with conscious patients, while in this study the nurses' communication was merely informing patients about the procedure with the communication lasting less than ten seconds.

Group Nurs#A6 reported they were satisfied with their communication to patients citing the information they gave to newly admitted patients and their relatives as part of nurses' communication. They also pointed out they were comfortable communicating with one of the patients who had stayed in the ICU for 63 days as he was conscious and responded to them through blinking of the eyes. The other nurses who had nursed this patient also reported they felt more comfortable communicating with him as he had been in the unit a long time. The fact that this patient could maintain eye contact made the nurses feel satisfied with the communication, even though it was one way. Although nurses viewed this as a positive response to communication, the father who was interviewed expressed he was not happy with the nurses' communication. The patient's responsiveness has been described as a contributing factor in determining the reciprocal responsiveness of nurses towards their patients (Elliott & Wright, 1999).

Nurses' reasons for poor communication

Nurses reported that the lack of communication to patients and relatives was due to time constraints, as a means of self-protection and due to the clinical status of the patient.

None of the nurses from GroupNurs#B8 stated spending time communicating with patients, even conscious patients as they were too busy with other nursing duties. When asked if nurses spend time communicating with patients when they are free, a nurse from GroupNurs#A6 laughed and said they were always too busy to do that. They come to work, care for the patients, did their assignments and went home.

Nurses cited heavy workload and staff shortage as reasons for the lack of time to communicate with patients. All the nurses agreed the workload was heavy with many nursing procedures and frequent doctors' rounds due to the different specialties

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attending to the patient and also the additional workload of sharing patients. Nurses shared patients most times as only the very critical patients gets a 1:1 nurse: patient ratio. They have to assist their colleagues in performing some nursing procedures like sponging and tracheal suctioning. There were other chores like collecting blood specimens, labelling specimens and filing laboratory results, contacting medical and other staff for services. Almost always nurses never leave the unit immediately after their duty hours until about an hour later.

As reported by this nurse from GroupNurs#A6`

> " *Come to work and go home. Too busy and too much to do. If the ill patient what with 'heir inotropes, the procedures, sometimes busy till time to go home.*"

Nurses from Hospital B, claimed they were so short staffed that they cared for more than two patients at times leaving them no time to communicate with patients. The newly graduated nurses who reported for duty in the last two months had eased their workload, but they needed close supervision. The senior nurses had an added role of supervising these newly graduated nurses who were new to the unit. During the study more than 40% of the nurses from this hospital were new graduates with no experience of ICU care.

GroupNurs#3B reported

> " *...before we used to nurse patient 1:3, there is work pressure. It affects us that we have no time to communicate with patients as we are so busy with work.*"

Nurses from GroupNurs#A4 reported they communicated less to patients and relatives as a protective mechanism to prevent relatives from taking advantage of their kindness and exploiting them by asking more questions. One of the nurses commented GroupNurs#4

> " *the problem is they will ask several times. For us we do not like this, always asking. Like if we are friendly to them, when they go out they will tell the others that this nurse is friendly. For me it will be a bit disturbing.*"

Nurses from GroupNurs#B3 and GroupNurs#B7 who were from Hospital B considered answering the relatives' questions as a waste of time. This response was similar to that described by nurses from Hospital A. Whenever a nurse answered a question asked by a relative, she would be sought by another relative asking similar questions about the patient's condition. As they were busy with their chores, answering similar questions to

different relatives took up their time and these nurses then referred the other relatives seeking answers to the immediate relative identified on the admission form of the patient.

The other compounding factor with poor communication is the clinical status of the patients. Three groups of Hospital A nurses reported the patient's condition contributed to their communication behaviour. If patients were conscious, there was more communication. This was similarly reported by Albarran (1991). With unconscious patients, most nurses found it uncomfortable to have unilateral communication. Eventually they forgot to communicate, having received no response from the patients.

Contents of nurses' communication

Nurses agreed that communication with patients was minimal and restricted to informing them a procedure was to be performed. Some nurses said they do give a certain amount of explanation to the patient on procedures like suctioning, as mentioned by this nurse

GroupNurs#A4

> "… *always we ask him to cough during suctioning, we explain so that the phlegm can come out easy, breathing would be easier, like that …*"

GroupNurs#A6

> "… *sometimes. But during busy hours, none. Like when we do suctioning, sponging, we still communicate with them.*"

Although the nurses consider the above statements as communication to patient they were very minimal and very basic lasting no more than ten seconds. This was consistent with the researcher's observations in both hospitals.

Nurses' methods of communication

Nurses used communication aids to assist in their communication with conscious patients. Usually it was the family members who approached the nurses for the communication aids. The most common aids used were pen and paper. Another communication aid used was the alphabet where nurses wrote out the alphabet and asked patients to select the letters to spell what they wanted. Occasionally sign language was used, which was restricted to simple sign language. Pictorial messages were not

available. Three of the groups noted that conscious patients attracted the attention of nurses by waving their hands. There were no bells available in the ICU.

Nurses' confidence in communicating with relatives

Many groups of nurses reported communication occurred more with relatives than patients. They offered basic information to relatives for example whether the patient was conscious or unconscious and whether they were given sedation or analgesia. They did not offer to divulge the type of medication or treatment rendered. If relatives asked for more detailed information, they were referred to the doctors.

Some nurses said they were not confident to speak with relatives with medical background or if the relative was a prominent figure. In these cases they always referred them to the doctors. They feared they may have been able to explain in detail or answered questions with ease. Educated relatives or those with a medical background tended to ask pertinent questions in relation to the patient's disease condition or medication. Nurses fear they may be forced to divulge more information than was allowed. So the safe way was to refer them to the doctors. Even relatives who were considered fussy by nurses were referred to doctors should they seek information. As mentioned by the following group of nurses.

GroupNurs#A1

> " Because he is educated, he wants to know about the result. As you know results are confidential, so we cannot tell. We only tell him what he should know, but he still insists he wants to know the result. Like medical staff, we are afraid of giving wrong information. So it is better to call the doctor to explain. If we explain, he will ask more, and we will be confused."

Nurses stated that information to relatives was given upon request and they did not voluntarily offer information to them. Only one nurse reported that she approached the family member to voluntarily impart information about the patient's condition. In most instances, relatives sought information first before the nurse had a chance to communicate anything. As was described in the relatives' interviews, this was viewed negatively. They felt they were in distress at that time and therefore were not in a clear mind to ask anything about the patient. The relatives hoped the nurses would inform them of the patient's situation and condition, without being asked.

Nurses' reactions to relatives questions

Although it was noted that nurses communicated more to relatives, several groups of nurses (GroupNurs#A1; GroupNurs#B7; GroupNurs#B3) repo ted they were put off by relatives who frequently asked questions on the patients' conditions. Sometimes the questions were posed by several relatives when they visited. Nurses did not have the time to attend to all relatives answering the same questions as they had many other things to do. As quoted by these groups.

Nurs#B3

> "We don't have the time to repeat what we told the relatives. To the other relatives. Like if we have informed the close family member and he is uneducated and cannot explain to the other family member, it is a problem to us too."

Nurs#B7

> "We hardly have time to talk to them. We have enough to do to attend to them and we can't say we don't talk to them, but little."

Nurs#A1

> "... if they ask a lot, we have other things to do. If every 10 minutes they ask, it is like wasting our time only, there are many other things we have to do."

One method used by nurses' to deal with relatives was to distance themselves from them. This was reported by group Nurs#B7 who said they kept communication with relatives to a minimum to avoid being asked too many questions. Besides they felt their priority was to the patient, not relatives.

Nurses' confidence with communication

The nurses from all the groups reported they had limited knowledge and lacked confidence in communication. They stated that the lessons on communication they had from training days were not sufficient to equip them for the present nature of work where patients and particularly relatives were more knowledgeable and demanding. They were uncertain about what information they could divulge to patients and families and how to deal with anxious and depressed family members. They had no avenues to address this issue mainly because it was not discussed and supported by management.

The majority of the nurses from all groups requested that communication education be conducted as on-going education. This showed that they were concerned about improving their communication.

As quoted by this nurse from Nurs#A5

> " Because now in ICU it is different. The patients are different from those in the wards. Their families have different needs from the wards. They quite frequently ask from us. I feel if there is a communication course on how to care for the families is good too."

Another nurse from Nurs#B8 said

> " Maybe there is something new about how to communicate that you can tell us. Our lesson in communication in college is little. Sometimes we do not know how to approach certain relatives, especially the fussy ones."

Nurses' comments on ICU environment

There were mixed responses when asked about the ICU environment. Most groups of nurses agreed that ICU was noisy, situations varying from all the time to only during patient admission. Groups Nurs#A1, Nurs#A5 and Nurs#A2 described the ICU as noisy but they were used to the noise. Group Nurs#A4 said it was noisy during the day but quiet at night, while Group Nurs# B7 described it as noisy only when passing over reports. This result showed that nurses from both hospitals agreed that the ICU was noisy as was measured and reported in Chapter IV. The quantitative data shown in Figure 4.4 (page 78) reported 4% of nurses said the ICU was noisy and 95% said it was never noisy. Group Nurs#B8 said it depended on the situation, during patient admissions it was noisy, but sometimes it was quiet. This finding was not consistent with the interview findings, perhaps the way the sentence was structured in the questionnaire was not explicit as compared to the questions in the interview where nurses' could seek clarification and the researcher could probe further information.

Staff talking loudly was quoted as the cause of noise, especially during the day when there were many doctors and nurses in the unit. Nurses were sometimes not aware they contributed to the noise with their loud voices when they spoke to their colleagues across the unit. They said this occurred because they felt that the unconscious patients could not hear them and patients did not complain.

Nurses' experience with different languages

All the nurses were fluent in the Malay language and this language was spoken with all the patients regardless of their ethnic group. The nurses unanimously agreed that language was not a problem except for an occasional elderly Chinese or Indian, who might not be familiar with the Malay language. In those instances, the family members were always available to assist in the interpretation.

5.4 Summary of findings - Phase One.

It can be surmised from both the qualitative (Chapter Five) and quantitative (Chapter Four) findings of Phase One that there was lack of communication by nurses. This was noted by the nurses, patients and relatives and also from the participant observation conducted the researcher. The study identified several barriers impeding communication by nurses (refer to conceptual framework page 38). These barriers have been prioritised according to the impact that each had affected in the study. The priorities were determined by the impact of poor communication on patient care, relatives and nurses feedback on communication activities. As mentioned, patients and relatives were dissatisfied with nurses' communication with lack of information disclosed on the patients' condition. Nurses' cited patient's condition as a major cause for the lack of communication partly as communication was unilateral and also due to the conscious level of the patient. The barrier that impacted communication most was the patient's prevailing condition that prevented any communication from taking place. Consequently the lack of response from the patients over time caused nurses to eventually forget the patient's need for communication and cease communicating with them. Failure of patient to reciprocate was cited as main reason for lack of communication. In addition, nurses were overburdened with chores in the ICU while at the same time understaffed with qualified and experienced nurses. Listed below is the order of prioritization of the barriers identified. The order was determined by the frequency it was mentioned during the data interpretation.

- clinical status of the patient
- staff workload
- staff experience and training
- hierarchical status of staff and relatives
- staff shortages, and
- technology.

Barriers like hierarchical status of staff and relatives, staff workload and technology could be addressed through education. This formed the basis for planning the educational module to teach the nurses. The education program was to be delivered to nurses who had consented to participate. To address the problems with staff experience and training, a working paper based on the finding was to be presented to the hospital managers and personnel in charge of ICUs to persuade the training department to make available more training options for nurses who wanted to work in the ICU. Other barriers like clinical status of the patient and staff shortages were not amenable to change as part of this study but could be ameliorated through planning and appropriate intervention of nurse managers.

Although environmental factors like noise and lighting were described as a problem by a few patients and nurses, they do not directly pose any barriers to communication, and hence they were not included as barriers. Patients subjected to continuous noise are easily awakened from sleep and the sound of alarms disturbs their sleep (Richards, 1988). The patients who reported the presence of noise in the unit also reported they experienced frequent sleep disruptions resulting in exhaustion and fatigue indirectly affecting their mood.

Family members said their visits to the unit were not long enough for them to comment on the noise and lighting, with the majority reporting the ICU as quiet and the lighting appropriate. Nurses on the other hand agreed the ICU was noisy at interview, and in the case of one of the hospitals (Hospital B) it was not possible to control the lighting in the unit due to the existing structure. The nurses were not consistent with their answers on noise between the questionnaire and interview. They reported noise not to be a problem on the questionnaire. This inconsistency could have been due to the way the quantitative question was written where it was asked how often nurses experiencing high noise levels in the unit. The qualitative data allowed the researcher to seek more information on noise and the perpetrators of noise in the unit where only some nurses from Hospital A reported noise in the ICU was caused by their own conversation and the air conditioning plant which was located within the ICU.

This chapter has identified the barriers to communication and prioritised them in order of concern. These have then been identified for preparation of the education program where those barriers are amenable to change. Preparation of the education program

aimed to address communication barriers through the nurses' own reflective thinking and lived experience and interactive discussion. Although the suggested education program was designed to address barriers like hierarchical status of staff and relatives, staff workload and technology, it was expected that the ensuing discussion in the program could accommodate other related issues like staff shortages and means to communicate with patients who have conditions that preclude two way communications.

CHAPTER SIX

Findings of Phase Two and evaluation of Phase Three

Phase Two and Three of the study were conducted from June 2, 2004 until June18, 2004. Prior to collection of data, the researcher approached the unit managers of both the participating hospitals to inform them of the procedure. The procedure involved implementing Phase Two which was teaching nurses about communication barriers identified from Phase One followed by an evaluation period (Phase Three).

The evaluation period was conducted a week after the education program. This included observation of nurses who participated in the education program and ICU milieu, focus group interview and finally the nurses answering a questionnaire. The participating nurses were those who had consented to the study from Phase One.

The discussion of the findings is presented in the order of the data collected, which was teaching the nurses, observation of nurses and ICU milieu, focus group interview and answering questionnaire.

6.1 Implementing the education program

The education program incorporated a two hour education session with active participation of nurses using ward based case management (Faulkner, 1988). A total of 27 nurses attended the education program in two sessions from the two ICUs. There were 14 nurses (52%) with more than five years' experience in the ICU who attended the program. It was conducted as an in-service education program and accredited for appraisal purposes.

The teaching material was designed using an androgogical (Knowles, 1980) mode of learning which included self directed learning (O'Shea, 2003) and reflective learning (Masui & De Corte, 2005).

The contents of the education program (Appendix 16) incorporated discussions on the communication barriers identified during which the barriers amenable to change were selected to enable nurses to suggest appropriate recommendations. The barriers to

communication identified from Phases One and Two were clinical status of patients; staff workload; staff experience and training; hierarchical status of staff and relatives; staff shortages and technology. Staff workload, hierarchical status of staff and relatives, and technology were considered amenable to change at the unit level by nursing staff. The clinical status of the patient and staff shortages were not amerable to change, but other barriers like training and experience can indirectly be affected with education through discussions which inform nurses of the importance of communication and the impact of these issues. For example, nurses should be encouraged to continuously communicate with unconscious patients as studies have shown that unconscious patients can hear (Ramsey, 1986; Rosenthal, 1996; Russell, 1999).

The education program included a discussion on the ways nurses can improve communication with senior medical personnel and develop confidence communicating with relatives of significant status. As for technology, they should appreciate that new technology is inevitable but they should not compromise communication activities when managing technology. The emphasis for the education program was for nurses to improve and continuously practice communication with clients.

The nurses participated eagerly during the education program and they shared experiences with their colleagues. The senior nurses were more active compared to junior nurses who listened and occasionally acknowledged in their agreement on certain matters. It was this two-way communication that kept the educational sessions running on for more than the scheduled two hours. At the end of the session, the nurses concurred they would practice what they had acquired in the education program.

6.2 Observation of nurses and ICU milieu

The observation of nurses and ICU milieu in Phase Three aimed to find out the impact of the education program on the nurses' approach to communication with clients. Eighteen nurses who had participated in the education program were observed over a period of two weeks.

All the observations were conducted during the morning and evening shifts using the same observation schedule used in Phase One (Appendix 7). Additional notes were

written on the back page of the observation form. The observation noted communication initiated by nurses and patients.

Observation of nurses

Each observation lasted two hours and all the nurses observed were Malays. The nurses were identified by name from the education program attendance record and given a code to be recorded on the observation sheet. This ensured confidentiality as the attendance record was kept separately. Consent to participate in the observation phase had been previously recorded.

The patients involved were of mixed ethnic group and their conditions ranged from unconscious to conscious.

Observation of nursing activities

On average the nurses attended to the patients once or twice, similar to Phase One observation. There were two nurses who were at the patient's bedside for the whole two hours observation. Both the patients were conscious and the nurses communicated with the patients frequently, establishing eye contact. Three nurses read the unconscious patient's observation off the monitors without any communication or touching the patient. Only if the nurses checked the intravenous lines did they touch the patient - procedural touch (Green, 1994) and called the patient's name.

There were five nursing activities observed which included two episodes of tracheal suctioning, an insertion of an intravenous cannula and change of positions. Other activities were changing medication infusion pump and patient observations. These procedures were carried out without any interruption to the patient and the nurse merely called the patient's name without receiving any response from the patient.

Observation of communication activities – nurses and patients

Although nurses from the Hospital A ICU were busier, the workload did not seem to affect the communication observed.

There were 13 patients who were sedated and unconscious and five conscious /semi-conscious patients. The nurses called the patient's name when attending to him/her. Two nurses with more than five years service were observed to touch the patient when

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addressing him/her. Nurses explained the impending procedure and if family members were present they were also told what was to be performed. A senior Malay nurse who had ICU training attended to an unconscious patient with family members around. She explained to them (ethnic group Chinese) in Malay why the procedure needed to be done in Malay and they nodded understanding. When the nurse requested them to leave until the procedure was completed; they complied without any questions even though it was during visiting hours. The family members were informed the procedure was over and they came back to visit.

The contents of communication were still very procedural, where the nurse informed the relatives how the procedure could affect the patient and how it would be carried out. There was no introduction of self or any social communication like asking how they (patients or families) were before explaining the procedure. The average time lasted between five to 15 seconds, longer than the three to ten seconds average time observed in Phase One.

Conscious patients were spoken to more often during the procedure to pacify them but the content was minimal for example *"okay, okay."* Nurses looked at the patients as they spoke to them, even if they were unresponsive, which was absent in Phase One. One of the conscious patients in the second ICU was an Indian female with organophosphate poisoning. The nurse communicated via sign language and when she could not understand what the patient wanted, an Indian nurse who was on duty then was asked to assist with interpretation. The observed nurse was constantly by her bedside and established good rapport despite the language barrier.

Another conscious patient attended to constantly during the two hours observation was a 14 year old Malaysian-Chinese male patient diagnosed with Apert's Syndrome. This occurred in the first ICU (Hospital A). His mother was with him most of the time and he had a tracheostomy. The nurse was friendly to the mother and patient. Both nurse and mother assisted each other to deliver care. For example during tracheal suctioning the mother was allowed to stay and encouraged her son to be calm and held his hands when the nurse performed the suction. Usually nurses will ask family members to leave when a procedure is performed. The nurse was observed to speak gently to the patient to calm him down and gave encouragement in the form of humour. This nurse has been in the ICU for two years and had not undertaken an ICU course.

Three other nurses who had less than a year's service communicated to the patients, who were unconscious, but their communication was short, consisting of the procedure to be performed. Their colleagues who assisted them were quiet too. Nurses still felt uncomfortable communicating with unconscious patients and the unilateral mode of communication, confirming their inadequacy with communication as reported in the Phase One focus group interviews.

There was no communication initiated by patients during this observation period, even though there were five conscious/semi conscious patients observed.

ICU milieu

The observation of the ICU milieu focused on changes made to reduce noise, particularly from staff communication. The noise level was not measured this time as findings from Phase One shows noise was not a barrier to communicate. The reference to noise made by a few nurses was noise should be kept to a minimum in ICU for the patient's benefit and not related to noise affecting ability to communicate. It had been noted from the findings of Phase One that the main sources of noise were from staff talking, monitoring devices and from alarms of machines which lasted for short periods of time. The noise from the air-conditioning room affecting Hospital A still persisted as this involved structural change, but the door to this room was kept closed to minimise the noise level.

Nurses and other staffs were noticed to remind each other about lowering their voices when the researcher was around. The researcher observed that the majority of the staff continued to conduct loud conversations while the nurses who had attended the education program reminded them to lower their voices. It was still noisy in the hospital with more staff on the unit (Hospital A) during the day as noted in Phase One of the study.

The nurses or other staff quickly attended to the phone when it rang. The patients' bed lights were switched off when nurses were not attending to them. As for Hospital B the lights remained switched on as there were only two switches for each side of the lights on the unit.

6.3 Focus group interviews of nurses

After the observation period, the researcher arranged for focus group interview with nurses who attended the education program. There were two focus group interviews #Group A 1 (six nurses) and #Group B 2 (four nurses), a total of ten nurses. Arrangements were made with unit managers to roster the nurses who participated in the teaching on a morning shift to enable them to attend the focus group interview after their duty hours.

The researcher used a semi structured question format (Appendix 15) for the interviews. The interview lasted 30 to 35 minutes. It was conducted in Malay and English and tape recorded. Later it was transcribed verbatim and translated to English for analysis and grouped into themes. The QSR software NU*DIST, (Version N5, 2000) was again used to analyse the data. Among the themes that evolved were awareness of communication, impact of the education session, ICU milieu and recommendations by the nurses.

Awareness of communication

Both groups of nurse interviewed agreed that they were more aware of the communication needs of the client after the education session. The nurses stated that after the education program, they were more conscious of communication. It was not that they did not know the importance of communication, but they were sometimes carried away by the responsibilities and duties that it became less of a priority, as was reported by Hagland (1995). Furthermore, the clinical status of the patient was one of the reasons cited for this lack of communication. All patients admitted to the ICU were unconscious and sedated, which renders them unresponsive to verbal communication. Thus, even when nurses communicated to them, there was no response and eventually, nurses communicated less. It was much more difficult and uncomfortable to have unidirectional communication.

As mentioned by a nurse #Group A1,

> "We communicate less to patients because of the one way communication. But we are trying to improve and it is good after hearing from you we try to practice the suggestions you make."

The other nurses from the group were in agreement that there were increased efforts to communicate to patients. Their communication with the relatives had improved and they felt confident with their communication skills. Another nurse from #Group A1 said

> "I feel I am more confident now. I have been talking and explaining to the relatives. It is more of me asking them now rather than waiting for them to ask."

As for the patients, the same nurse said that she still felt more comfortable to talk to conscious rather than unconscious patients. Her reason was that the patient was sedated and too drowsy to listen and she felt uncomfortable to talk to them. Another nurse said she preferred relatives to ask rather than her initiate the communication with them. But she had attempted speaking to the relatives before they could ask her, and it made her feel good. It is a new approach for her and she hoped to practice more on it.

#Group B 2 nurses reported they talked more to relatives now, but if relatives insisted on more details, they would still refer them to the doctor. As this nurse pointed out,

> "But when they ask for too many details, I still refer them to the doctors. Actually sometimes we are not sure what the doctors have told the relatives and when they ask us, we may tell them something else."

The nurses were sometimes in a dilemma as they were not involved when doctors informed the relatives of the patient's condition. The nurse described an occasion when she informed the relatives that the patient's condition had not improved and the relatives argued that the doctor told them otherwise. When the nurse sought clarification from the doctor, it was true that he had told the relatives there were some improvement based on the laboratory results and the nurse was reprimanded for informing the relatives about the patient's condition.

Nurses need more knowledge on communication to enable them to have confidence when they encounter family members and need to discuss with the doctors about what they can inform the relatives to avoid any misunderstanding and conflict. The nurses were comfortable discussing issues of patient's condition with doctors who were in training or worked on the unit, but were hesitant to communicate with the specialists who were senior in age and autocratic.

Impact of education session

When the researcher asked the nurses their feelings and opinion on the education session, both groups of nurses gave positive comments. The comments included the following,

Group B 2 Nurses

> *"For me it is very helpful. As I have no post basic course, it helps me a lot. I feel more confident now talking with relatives."*

> *"At least after the session when we discuss about it we agree what you say is true. It is not that we do not know but tend to forget."*

#Group A 1 Nurses

> *"Actually if we had more sessions like that it would be a good reminder to us. Like us for the senior ones it is like a reminder and revision for us. As for the younger ones it is good for them to attend the session.".*

There were nurses who suggested frequent sessions of communication education to junior nurses as they often were not permanent in the unit and each time the unit gets new nurses they lack the necessary communication skills. There was another nurse who said that they knew communication was a problem in the unit, but no one brought it up, so it was not given attention. She said the session was good and should be held more often.

The researcher asked the nurses if they engaged in reading of recent articles or subscribe to any nursing journals as this is also a way to keep informed on current issues. All gave a negative reply and the reason cited was that journals were too expensive to subscribe to and even the ICU unit did not subscribe to any journals. If they needed to read, they had to go to the hospital library which subscribes to a few nursing journals. There were no local nursing journals published at the time of this report. Staff hoped that nursing educators could pin up new articles regarding ICU in the unit for them to read as they do not have the time to go to the library. The nursing school library has an array of journals but time is a constraint for the nurses and the journals are not accessible for staff from the wards.

There were nurses who stated that the education session was positive, but did not have the time to attend any education session unless it was made compulsory for them. They

reported they went home very late each time after work and they had family commitments to attend too. They could attend this session as it was made compulsory by the unit manager and she promised them it would be recorded as an activity attended for purposes of their yearly performance appraisal.

ICU milieu

The researcher asked the nurses if they had helped in making the ICU milieu less noisy.

#Group A 1 nurses laughed and said they did try, but as their unit was always busy and had more personnel it was sometimes difficult to control the noise level. They were aware that most of the noise was from their communication and they had tried to reduce that by lowering their voices. In fact they said they usually forgot about it and only remembered when they saw the researcher. One of the nurses said that she had even reminded other nurses about lowering their voices when they speak.

One of the nurses from #Group B 2 stated that the moment she saw the researcher, she reminded herself to speak softly. Otherwise they had all made efforts to reduce the noise level and agreed that it was not a problem in their unit as they have very few people on the unit except during visiting hours. Relatives were however usually quiet as the 'silence' signs were put up in the unit. The only adjustment that was not possible yet was the lighting. The lighting of the unit remained as it was, as modification involved structural change. Therefore the lights remained controlled by a switch that lighted the unit according to which side the switch was turned on.

Nurses' Recommendations

The nurses were asked what they would recommend on communication, and both groups of nurses agreed that continuous education on communication is the best way to help nurses improve their communication. They wanted to be informed of any new ways of communication so they could improve their skills.

#Group A 1 nurses.

> "Communication is important and there must be new things about communication that we can learn."

> "It is important at least we will be informed of the new things happening."

"I think communication is important but it is the one thing that is often forgotten especially in ICU where patients are not responsive."

Nurses from both groups agreed the education program had reminded them of the importance of communication which they forget when they were busy with their work commitments.

#Group B 2 nurses

"Like us for the senior ones, it is like a reminder and revision for us. It is a reminder to us and a good one. When we are so busy we always forget things that we already know, but with reminders we became more alert to it and could pay more attention."

6.4 Post communication questionnaire

The final part of evaluation in Phase Three was the questionnaire, answered by all the nurses attending the education program. This was delivered after the focus group interview and the unit manager was asked to distribute the questionnaire. The nurses' names were given to the unit managers so they could hand the questionnaire out to the named nurses and a week was given before the researcher came to collect them.

The questionnaire had 19 questions which included four questions on demographic data relating to the designation, ethnic group, age and length of service in the ICU (see Appendix 6). The remaining 15 questions were closed ended type questions. All the questions were answered, and all 27 questionnaires returned.

Demographic data of nurses

All 27 participants were female registered nurses. The participants were of two ethnic groups with the Malays being the majority, (93%) and two (7%) Chinese nurses. This reflected the general unit staff profile. When the nurses' age groups were tabulated, ten (38%) of the nurses were below 30 years. This was also reflective of the age groups of nurses on the unit. The nurses' service in the ICU ranged from below one year to 20 years, with thirteen (47%) having less than five years' experience. There were eight nurses who had served less than one year and had minimal experience in the ICU. Table 6.1 shows the ethnic component, age groups and experience of nurses in ICU.

Table 6.1

Nurses' profile

Ethnic group

Malays	25 (93%)
Chinese	2 (7%)
Total	27 (100%)

Age groups

30 and below	10 (38%)
31-35 years	7 (26%)
36-40 years	1 (4%)
41-45 years	5 (18%)
46-50 years	2 (7%)
51-55 years	2 (7%
Total	27 (100%)

Length of ICU service

Below 1 year	8 (30%)
1-5 years	5 (17%)
6-10 years	8 (30%)
11-15 years	4 (15%)
16-20 years	2 (7%)
Total	27 (100%)

Questions pertaining to communication

Part B of the questionnaire comprised 15 questions with values of 1 to 5. The value 3 represents neutral response while values of 1 to 2 represent disagreement and values 4 to 5 agreement.

The first three questions asked whether nurses talked to unconscious patients; gave any explanation prior to any procedures performed and their rating of confidence communicating to unconscious patients. Table 6.2a reveals that a high percentage (81%) of nurses agreed they talked to unconscious patients while 72% stated they explained the procedures and 78% (Table 6.2b) were confident communicating to unconscious patients. From these data it was noted that 18% - 27% of nurses were neutral in their responses. They were the nurses from #GroupA1 who described they were still learning how to communicate even though the education session had benefited them. Nevertheless there was improvement in communication with unconscious patients and confidence communicating to unconscious patients as reported from this finding. In Phase One only 13% of nurses communicated with unconscious

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patients at least sometimes and 57% were confident communicating with unconscious patients at least sometimes. Although the present sample was small (18 nurses) compared to Phase One (83 nurses) it was evident the education program has instilled some awareness on communication.

Table 6.2a

Nurses' communication activities with patients

Value	Talked	Explain procedure
1 never	0	0
2	0	0
3	5 (18%)	7 (27%)
4	17 (63%)	12 (43%)
5 always	5 (18%)	8 (29%)
Total	27 (100%)	27 (100%)

Table 6.2b

Nurses' confidence with communication

Value	Confidence of communication
1 not confident	
2	1 (4%)
3	5 (18%)
4	21 (78%)
5 very confident	
Total	27 (100%)

Nurses were asked if they should limit their explanation to procedures only. Twenty seven percent disagreed and 60% agreed that patients should be informed on procedures only. It is possible that the majority of nurses wanted to limit their explanation to procedures only so as to prevent relatives from further questioning them on the patient's condition as was mentioned during their Phase One interview.

When nurses were asked if repeatedly informing sedated patients of procedures to be performed wasted their time, 12 nurses (46%) agreed it wasted their time. Although it was discussed in the teaching session that informing patients repeatedly of procedures

will orientate them to their surroundings, many nurses were not convinced. See Table 6.3

Table 6.3

Explained procedures and repeated information wasted nurses' time

		Explain procedures only	Repeated information wastes nurses' time
Do not agree	1	7 (27%)	9 (29%)
	2	0	0
	3	4 (13%)	6 (24%)
	4	9 (29%)	9 (29%)
Fully agree	5	7 (31%)	3 (17%)
Total		27 (100%)	27 (100%)

There were 19 nurses (70%) who felt confident communicating with relatives and 21 nurses (76%) felt confident attending to relatives who asked questions frequently. These questions were meant to elicit nurses' reaction to communication with families based on earlier findings from Phase One that reported only 66% of nurses were confident communicating to families. This finding showed a small increase in nurses' ability to communicate with family members as reported in Table 6.4. As noted in Table 6.1, 39% of nurses were in the 30 years or younger age group and 32% of them were in the below one year service in the ICU. This is lower than in Phase One, where there were 50 nurses (60%) who were <30 years old and 20 (24%) with less than a year's experience in the ICU The eight nurses (30%) who were uncertain about their communication with relatives were from this group of nurses. They lacked experience and this could explain lack of confidence.

Many nurses reported increased communication with relatives following the education sessions and senior nurses said they were actually more aware of the relatives' need for communication. The nurses felt if they had to deal with family members who ask questions frequently, they would be able to handle it more confidently. Twenty one nurses (77%) were highly confident in answering queries from family members. It is possible that the six nurses (27%) who were uncertain needed more time to develop their communication skills.

Table 6.4

Confidence communicating with relatives

		Confidence communicating to relatives	Confidence attending to relatives who frequently ask questions
Not confident	1	0	0
	2	0	0
	3	8 (30%)	6 (24%)
	4	14 (51%)	15 (59%)
Very confident	5	5 (19%)	6 (17%)
Total		27 (100%)	27 (100%

The nurses were asked if their knowledge of the patient's information was adequate for them to explain what the relatives wanted to know. Table 6.5 shows the findings.

There were 21 nurses (78%) who were confident they had adequate knowledge of the patients' condition to explain to the relatives. From the interview it was found that nurses knew the patient's condition well enough to explain to relatives, but they were not willing to impart the information as they were not sure if it violated the hospital's regulations. Another reason was nurses' fear that should they impart more information, more relatives will seek them for a more detailed explanation.

Table 6.5

Adequacy of knowledge of the patient's condition

Inadequate	1	0
	2	0
	3	6 (23%)
	4	17 (65%)
Adequate	5	4 (12%)
Total		27 (100%)

When questioned as to whether relatives should be encouraged to talk to sedated patients, all nurses agreed that relatives should be encouraged to talk to the patients. This shows that nurses believe patients can hear and when family members speak to the patient, it may reduce the patients' anxiety level (Baker & Melby, 1996; Dennison,

1995; Heath, 1989). Table 6.6 shows findings. It was interesting to note that when nurses were asked if they themselves talked to sedated and unconscious patients about 18% were neutral (refer to Table 6.2a).

Table 6.6

Encouragement of relatives to talk to sedated patient

Fully disagree	1	0
	2	0
	3	0
	4	8 (30%)
Fully agree	5	19 (70%)
Total		27 (100%)

The nurses were also asked if they discussed the functions of the machines used on the patients with the relatives to allay their fears. Table 6.7 shows about 24% of the nurses did not agree that nurses should explain the functions of machines used while 59% agreed that it should be explained. Perhaps the nurses who agreed that explanation should be given believed that the information was part of communication and relatives would be less anxious if they knew the reasons for the use of certain machines on the patient. Those who did not agree reported during the focus group interview that relatives do not understand about the machines anyway and explaining would take too much time as they were already busy with their work.

It was noted that even though many nurses agreed that relatives should know about the machines used, this does not necessarily mean that nurses undertake this activity. During the observation, only on one occasion did the researcher observe a nurse explaining to a family member the use of a tracheostomy tube, but the explanation was very basic, relating the purpose of the tracheostomy. The relative did not ask further about the tube and it was not certain if she understood it at all.

The next question asked nurses if relatives who do not ask questions should be left alone. This question sought to determine if the nurses were willing to voluntarily impart information or initiate discussion with family members. The majority of the nurses 65% did not agree that relatives should be left alone, meaning they will voluntarily give information to family members and 20% believed that if relatives did not ask questions

they should be left alone (Table 6.7). As was seen from the interviews from Phase One nurses continue to be divided on giving information voluntarily. In Phase One many nurses from different groups admitted that they did not favour giving information voluntarily for fear of being approached many times by different relatives, thus affecting their ability to do other work for that shift. Some felt that it is better for family members to ask information themselves as they know what they wanted to know. Some nurses believed that relatives were already distraught with the patients' condition and would therefore welcome nurses to tell them voluntarily. If the researcher was to be guided by the findings from the relatives' point of view (Phase One), the majority of the relatives preferred to be informed voluntarily by nurses as they were not certain of what to ask.

Table 6.7

Explain functions of machines and relatives should be left alone

		Explain machine functions	Leave relatives alone
Do not agree	1	4 (12%)	9 (48%)
	2	4 (12%)	6 (17%)
	3	5 (17%)	5 (15%)
	4	8 (35%)	4 (12%)
Fully agree	5	6 (24%)	3 (8%)
Total		27 (100%)	27 (100%)

The nurses were asked to rate the education program they had with the researcher and the need for continuing communication education. There were 85% of the nurses who rated it as effective. As shown in Table 6.8 all the nurses agreed strongly that continuing education on communication should be conducted. This indicated a strong desire among the nurses for the education program to be an ongoing procedure. Although the number of nurses participating in the study was small in comparison to the whole staff in ICU (70 nurses from Hospital A and 41 Nurses from Hospital B) their total commitment cannot be considered as representative of all ICU nurses. Other nurses who were not involved in the study support the need for continuous education on communication when they approach the researcher to commend her on the education session and enquire the findings of the study.

Table 6.8

Rating communication lesson and need for continuing communication

		Lesson on communication	Continuing communication
Ineffective	1	0	0
	2	0	0
	3	5 (15%)	0
	4	17 (70%)	7 (25%)
Very effective	5	5 (15%)	20 (75%)
Total		27 (100%)	27 (100%)

The nurses were asked if they felt comfortable asking their colleagues to talk more quietly in ICU to reduce the noise level. There were 16 nurses (66 %) who said they would be able to advise their colleagues to tone their voices down to help reduce the noise level (see Table 6.9). The 13% who did not agree were the very junior nurses, who may have difficulty in telling the senior nurses to tone their voice down. The problem with noise is widespread in Hospital A ICU. It is only with the strong commitment of the nurses to reduce the noise level that this may be reduced.

Table 6.9

Advising colleagues to reduce noise in ICU

Responses		Participants
Disagree	1	0
2		5 (13%)
3		6 (21%)
4		7 (31%)
Fully agree	5	9 (35%)
Total		27 (100%)

The final question sought to find out what nurses feel about the suggestions on improvement of communication as was discussed in the education program. One nurse was uncertain if the suggestions could be implemented. The nurse was a junior with less than a year experience. It was possible that she still did not feel confident about her communication skills. The other nurses agreed that they could implement the suggestions of the education session to improve communication skills and other barriers identified in Phase One. Table 6.10 shows the result.

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Table 6.10

Communication suggestions can be implemented

Responses		Participants
Disagree	1	0
	2	0
	3	1 (4%)
	4	12 (46%)
Fully agree	5	14 (50%)
Total		27 (100%)

6.5 Summary of Phase Three findings

Although the educational program was short, the above findings suggest there was an improvement in the way nurses communicate with ICU patients regardless of the patients' clinical status and the activities of the unit. It maybe premature to say that one education program made the improvements. It was acknowledged by nurses that the education program had instilled awareness and was the 'wake-up call' for experienced nurses to rearticulate their communication skills which had not been practiced due to the unilateral mode of communication in ICU. It was pointed out in Phase One that communication was not practiced due to the patient's clinical status and the amount of work nurses have to perform, yet in Phase Three those nurses who attended the education program demonstrated that they could communicate if motivated to do it.

For the inexperienced nurses, the education session has opened a new insight on the importance of communication in intensive care. Working in the ICU was a new experience for them where technical skills were crucial to patient well being but there were no role models for them to emulate regarding communication skills. Their communication education in their basic nursing education was insufficient to prepare them for the experience in the ICU and they were happy to be given a chance to participate in this study thus gathering new knowledge.

It was also noted that nurses welcomed any education on communication skills and were willing to commit to attendance of such programs when made part of their working day. These positive remarks can be used to enhance communication practices with other nurses.

CHAPTER SEVEN

Discussion

This chapter discusses the qualitative and quantitative findings from the study described in the previous three chapters. The discussion also includes a review of the research questions in relation to the study findings.

The study revealed that the main communication barriers identified in Phase One were lack of communication related to the patient's clinical status, staff workload, staff shortages, and staff experience. These findings were consistent with those cited in studies done more than 25 years ago. Following the education program in Phase Two, the evaluation of nurses' communication activities in Phase Three identified initiation of communication by nurses participating in the study.

7.1 Lack of communication

Lack of communication was reported by the participants in the study and from the participant observation by the researcher of nurses working in the ICU milieu.

Nurses interviewed reported not communicating with patients and relatives. Several reasons were given to explain their poor communication. The participant observation of nurses and the ICU milieu informed the researcher of a lack of verbal and non-verbal communication activities of the nurses. The patients affirmed the lack of communication by nurses during the in-depth interviews. By contrast, the relatives felt the nurses were friendly and talked to them on general matters, but did not communicate pertinent and sufficient information about the patients and their conditions.

Lack of communication reported by nurses

The nurses lamented their lack of communication which they felt was attributable to several factors. This included lack of time, clinical status of the patients, experience, staff workload and their perceived inferior status in relation to doctors and relatives. Nurses reported the heavy workload and lack of time as factors affecting their communication activities. The many tasks and heavy workload of nurses in the ICU left them little time to engage in communication with patients. Their duties included

performing nursing procedures, preparing medications, attending to the frequent doctor's rounds from different specialties and assisting their colleagues when they shared patients. The researcher observed nurses performing these activities during the observation period and this topic was mentioned by many nurses during the focus group interview. Their duty hours were always extended to enable them to complete their assignments particularly when patients were critically ill or after surgical procedures. This extension of duty hours was not paid as there was no provision for overtime payment for registered nurses. The many procedures nurses had to attend to, in particular to post-surgical patients left them with little time for communication. These findings are consistent with those of Ashworth (1980) and Stovsky, Rudy et. al (1988) who reported nurses find little time to communicate with patients, particularly post surgery, as there were many procedures to perform which are given priority over communication.

The clinical status of the patients affected the nurses' communication with their patients. Most of the patients in ICU were sedated and intubated, which rendered them unconscious or unresponsive. Often they were unable to verbally communicate even if they were conscious due to the presence of endotracheal tubes. The transcripts showed that the nurses found unidirectional communication frustrating and unrewarding, so they eventually neglected and stopped communicating. They stressed the importance of delivering physical care competently as more important than communicating effectively. This too was reported by Ashworth (1980) and Turnock (1989) where nurses were uncomfortable communicating with unresponsive and intubated patients who cannot reciprocate. Nurses had reported they eventually forgot to communicate after repeatedly not getting any response from the patients (Turnock, 1989). Despite these studies being conducted more than twenty years ago, similar reasons were again cited in a recent study by Alasad and Ahmad (2005). This may suggest nurses tend to communicate to responsive patients but do not fully appreciate the communication needs of the semi- or unconscious patient.

The nurses' lack of experience was cited as a contributing factor to poor communication. A total of 67% of the nurses in the two hospitals had less than five years's service in the ICU, with 24% of them below one year having recently graduated from nursing colleges. They had no ICU training and were inexperienced in the care of critically ill patients and the high technology appliances in use. A lot of time was

allocated to performing care on the ill and learning to use new technologies; that is there was an emphasis on delivery of physical care over psychological care. A study by Hagland (1995) reported nurses believed that ICU life saving procedures and learning the machine functions were more important than communication. This shows similarities to findings in the present study.

Nurses with more than five years' experience and training in ICU on the other hand reported confidence managing critically ill patients and the high technology. They reported communicating to the patients infrequently and time spent was short due to heavy work load. Part of their workload was to mentor the new and inexperienced nurses. The participant observation noted that nurses who communicated to patients used communication to inform patients of procedural matters or to pacify them; these efforts lasting less than five seconds on average. This finding is congruent to that reported by Ashworth (1980). In her landmark study she found that nurses spent about 14% of their time in communication, although this study revealed nurses spent even less time in communication. The amount of time nurses spend in this study was three to ten seconds communicating with patients and the contents were procedural. This was before the education program was taught. After the education program, the communication lasted between five to fifteen seconds, slightly longer but the contents remain the same, procedural.

Communication was reported to be more frequent with the relatives and usually it was initiated by them when they wanted to know the progress of the patient. Nurses expressed satisfaction communicating with relatives as it was two-way but they were wary of relatives who frequently asked many questions. Reluctance of staff to inform relatives of patients' conditions, particularly those related to laboratory investigations or procedures carried out on the patients and their current medical conditions, was expressed by nurses during the interview. Their main concern was that this prompted other relatives to approach them for information and time spent with the relatives compromised time meant for patient care. Usher (2001) reported nurses evade communicating with relatives citing time spent on explanation to relatives can be effectively used for patient care instead.

Inexperienced nurses expressed lack of confidence communicating with senior doctors and prominent relatives and deferred any communication with them. Their lack of

knowledge and experience impacted on their communication and caused uncertainty when communicating and relating to these personnel. Junior nurses avoided any encounter with these relatives or asked a senior nurse to attend to them. Junior nurses are bound by the respect they have to show to people of higher standing and those much older to them, and to avoid causing any displeasure or dissatisfaction to these people, hence they avoid communication with them (2007, Culture of Malaysia)

Although nurses and doctors should work as partners, especially in critical care (Sweet & Norman, 1995), in reality work pressure and the higher professional status of the doctor remains a barrier to effective communication (Adamson et al., 1995). The doctor-nurse dominance is still present in Malaysia where nurses do not directly communicate to the specialist. Most of the specialists in the ICU are males and generally Malaysian men have more power over women. Sahan (2002) reported that the medical profession in Malaysia has established a value system that dictates practices by its members and subordinates. This explained the subservient role assumed by many nurses in the ICU.

Power, social status and hierarchical differences between nurses and other healthcare personnel and relatives can contribute to poor communication. These factors have previously been recognised as impeding communication (Chant et. al, 2002). This study identified that nurses perceived social status differences between relatives and junior nurses, and between nurses and doctors. As noted by Sahan (2002) the medical personnel relationship with a patient is an unwritten social contract. It is a one sided affair for the patient who is handicapped by the lack of knowledge and understanding of the medical terms that he/she eventually becomes a passive receiver of care. This superiority role is assumed by many senior doctors with nurses as well due to the high standing position accorded to doctors by the Malaysian society.

Social status of the relatives imposed difficulties for some nurses, particularly junior nurses. These nurses did not feel competent and confident in attending to these relatives and in such situations they would always refer them to the senior nurses or ask the relatives to see the doctors. The relatives saw this as a shortfall in the nurses' role and alleged they lacked knowledge.

The existing power differences between doctors and nurses limited their interaction and this thwarted good communication between them, especially when the issue involved patient care. This does not augur well for nurses and doctors as problems arise when there are different specialties attending to the patients.. Nurses caring for a patient who had more than one doctor attending to him/her may find that before she could perform the instructions of one specialist, another specialist would perform his round and prescribed other treatment. Nurses reported during the interview that having to attend to the different doctors took up their time and senior doctors demand to have their prescription attended to promptly.

Senior nurses must acknowledge the status differences that existed between relatives and junior nurses and to bridge these differences, a senior nurse should ask the junior nurse to be present whenever explanations are given to any relatives so the junior nurse can pick up information on handling questions and communicating with relatives. Nurses should be assertive and must possess adequate knowledge to have confidence to communicate with doctors' especially senior doctors or specialists. Having regular discussions with the doctors to establish rapport can enhance the relationship and narrow the status gap between them.

Lack of communication with patients and relatives.

Patients reported communication as important in imparting information and reassurance to them during their ICU stay. Although most times they were sedated, some patients recalled communications. Green (1996) reported patients on sedation were able to hear and thus needed communication. For this reason, many patients interviewed in this study suggested nurses kept them informed and reported their condition. If nurses continually communicate to them, they would feel less threatened and daunted by the ICU experience.

Communication on the patient's part was difficult when they were intubated. Intubation rendered them speechless and is an important reason for them to be fearful of their condition (Ashworth, 1980; Turnock, 1991). A patient who had been conscious in ICU described how she could only receive information given by the nurses but could not respond due to the intubation. This frustrated her because of the one way communication. She eventually became resigned to the situation and accepted it because she had experienced the same situation on previous admissions to ICU. Other

studies have revealed that when nurses were not able to translate the intubated patients' cues or signs, patients became frustrated and helpless (Bergbom-Engberg & Haljamae, 1988; Hafsteindottir, 1996; Heath, 1989). This in turn exhausted them and caused them to give up further attempts at communicating (McCabe, 2004). Communicating information of progress and reassurance will help alleviate their fear and anxiety.

Patients' who had been semi-conscious or beginning to gain consciousness in the ICU after the effect of sedation had worn off, expected nurses to inform them often of any changes. These patients who had hovered between consciousness and unconsciousness hoped nurses would continually remind them of their whereabouts and their condition so they would be able to reorientate themselves to the surroundings. Often patients reported that when they had gained regained consciousness nurses tend to spend less attention to them and gave more attention to unconscious patients. This tendency was reported by Ashworth (1980), Turnock (1991) and Alasad and Ahmad (2005). Two reasons were cited, conscious patients required less intensive monitoring (Turnock, 1989) and nurses were not comfortable answering many questions from the conscious patients (Alasad & Ahmad, 2005; McCabe, 2004; Turnock, 1991).

Although only 19% of the patients interviewed remembered their ICU stay as they were conscious, they reported that the communication nurses had provided was insufficient and too short with no explanation on their condition and progress. Another 57% patients reported memory of ICU stay upon being conscious a few hours before being transferred to the general ward, and they too reported little or no communication by nurses. They remembered family members visiting but they could not remember the nurses who cared for them. There were those who were aware of their surroundings but stated that most times they were drowsy and could not remember. Patients who had gained consciousness reported nurses rarely attend to them as nurses were busy with other ill patients and if an alarm suddenly activated, this frightened them. Bergbom, Hallenberg et. Al (1988) stressed the importance of providing information to patients based on their study findings where patients interviewed reported feeling secure and less anxious when nurses communicated their condition and was close to them to attend their needs.

The relatives were always anxious about the patients' condition. The findings of this study noted relatives expressed dissatisfaction with communication particularly

regarding patient information. They complained about the lack of information and felt that most nurses were at times uncaring. One relative reported a nurse laughed and talked happily while attending to his wife who was unconscious. This left the relative with the impression that the nurses were insensitive to the feelings of the relatives and patients. Most of the ethnic groups in Malaysia believed that whenever attending to a sick person, one must show respect and sympathy. Even children were told not to be playful and noisy when around a sick person.

Relatives agreed nurses should impart information to them voluntarily, without being asked. Most relatives were unsure of what to ask as they did not know what information they needed and they were unaware of the patient's condition. Although many relatives reported nurses were friendly and informed them of the patient's progress, they wanted extended explanations of medication and medical interventions to anticipate changes. Most of the relatives interviewed were female spouses or mothers of the patients. More than half of the relatives interviewed felt they were unfamiliar with medical terminologies and procedures as their education was basic and they did not work. They felt they had no idea what treatment the medical staff administered to the patient except that it is to improve their condition. This lack of knowledge and confidence prevented them asking pertinent questions related to the patient. They reported that they would be very grateful if nurses or doctors would every now and then inform them of what they are doing or if there is any change to the patient. If nurses attending to the patient acknowledged them (relatives) and said comforting words or even mentioned that there is improvement or likewise to the patient, relatives felt their presence was accepted. Having such information from the doctors and nurses greatly helped in reducing their anxiety; especially during clinical procedures and investigations. Relatives with basic education or who were housewives reported that they felt afraid to confront the doctors because they do not feel confident to talk to them, but were most happy if nurses communicate more to them as they feel nurses were more aware of the changes in the patient being with the patient all the time. It may also be that the nurses were female and shared similar roles and social status in the wider Malay community.

This need for information was consistent with other findings (Jamerson et al., 1996, O'Neill Norris, 1986; Quinn et al., 1996). This aspect of information needs by families is widely recognised (Azoulay, 2002; Holden, 2002; Leske, 1986; Quinn et al., 1996). A study from Hong Kong (Lee & Lau, 2003) with Asian values similar to Malaysia

identified information and support as very important to families. There is currently no study conducted in Malaysia on this matter for comparison.

Recalling the support from relatives was instrumental to patient's well-being as reported by Hupcey (2000, 2001). Patients felt reassured upon seeing a familiar face when they woke up and this gave them encouragement. Family support has been described as important by patients in other studies (Scullion, 1994) and the involvement of family was said to enhance meaningful communication with the patient (Dyer, 1995b). In Malaysia, family support is always present when a family member is admitted as the whole family will come to the hospital with sometimes the spouse or mother setting up home in the hospital area.

As mentioned earlier, relatives are vital in supporting the patient during illness (Lange, 2001) and it was not unusual for a sick patient to have many relatives visiting and each one asking the nurse of his condition. These relatives would share the information they received from nurses as each relatives would ask different questions depending on their educational level. This worked well for relatives who were unfamiliar with medical matters as they often entrusted their educated relatives to speak on their behalf for detailed information, if they could not understood what was explained to them by the nurses. They normally accepted what was told to them without questions even though they did not understand the information. Therefore, when an educated family member visited, he/she would be asked to seek from the nurse further clarification on the earlier information given. Although relatives were critical of nurses' communication, they appreciated he nurses' care for the patients.

7.2 Participant observation of nurses and ICU milieu.

This section discusses the researcher's participant observations which took place in Phase One and Phase Three. The ICU milieu was only observed in Phase One and included noise monitoring. The observation was not carried out in Phase Three as the findings from observing the ICU milieu did not have any contribution to communication barriers. This includes lighting and noise levels.

Participant observation

Nurses displayed minimal verbal and non-verbal communication cues to patients during Phase One observation. This could be due to their earlier explanation that communication was most of the time one-way so eventually they "forgot" to communicate. Touch which has been advocated as a means of communication (Adomat & Killingworth, 1994; Cox & Hayes, 1999; Schoenhofer, 1989) was infrequently used. Customs and religious beliefs of the nurses may have caused the absence of this mode, where it was not customary to touch other people (Subramaniam, 2005). For the Muslims, touching between males and females with no family ties is considered inappropriate while there are no special restrictions for males and females from other ethnic groups. As each ethnic group tries to maintain respect with one another they avoid transgressing the religious and cultural rights of others. As Islam is the dominant religious belief, other ethnic groups know that Muslims have restrictions on interpersonal communication and touch and tend to observe these restrictions in the general community. Certain European cultures and religions are also wary of close proximity between strangers (Verity, 1996) creating confusion about touch as a method of communicating in a multi cultural setting. This is then considered best dealt with by avoiding any form of touch, even if known to be therapeutic.

The nurses interviewed did not consider touching as performed during care delivery being against the religion and said that if the situation arose like having to touch the patient in a procedure, they would perform it. They reported that they infrequently touched the patients as it did not seem necessary, clearly indicating the concept of therapeutic touch was not considered.. Eye contact and sign language was employed when communicating with conscious patients who were still unable to verbally communicate due to the presence of endotracheal tube and communication aids like paper and pen were used with a patient who had been in the unit for 63 days.

It was also noted that brief information on procedures lasting between three to five seconds was communicated infrequently to patients regardless of their conscious state. What the nurses considered communication were mere statements of procedure which most of the time were spoken without any eye contact. A nurse was observed to have told the patient she was going to perform suction on him as she was drawing the curtain to screen him. As the frequency with which nurses attended to patients was minimal the opportunity to communicate was limited.

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The above observations from Phase One established that although nurses acknowledged the importance of communication, in practice this was rarely implemented Nurses may have knowledge on communication but are poor practitioners in this area. A plausible explanation for the poor practice of communication was the condition of the patients. As mentioned earlier, the inability to establish a two way communication and eye contact appeared to discourage the nurses from communicating with the patients.

A common reason cited by nurses about their lack of communication to patients and family members was work commitment and the lack of time. This has also been reported by Ashworth (1980), Stovsky, Rudy, and Dragonette (1988) and Bergbom-Engberg and Haljamae (1993). Nurses said they have many chores to attend to and sometimes could not even finish their work on time, forcing them to stay back for another hour or more. This was observed by the researcher where the nurses only attended to the patients once or twice during the two hour observations. During another twelve observation periods the nurses did not attend to the patient at all during that time. They always had something to do like assisting their colleague or performed other duties. There were many non- nursing duties nurses were expected to do, a problem also recognised by Harrison (2002). These included the indenting of drugs and lotions, collecting supplies from the store, tracing laboratory results and radiological films. Nurses also accompanied patients for special radiological examinations and when patients were transferred to another hospital. Attending to the doctors from different specialties for their patient took up a lot of nurses' time and there were accompanying treatment orders and investigations that had to be attended to. The problem of "other" duties was highlighted by nurses in both the hospitals.

It was observed that nurses with less than two years' experience were the majority of nurses rostered to one of the ICUs. These newly graduated nurses accounted for more than 40% of the total staff population in this particular ICU (Hosp B). They reported they lacked confidence in communication as they did not have any experience to support them. They needed time to learn about the machines and precedence was given to the technical aspects of machines rather than the patients. This has been reported by other researchers (Albarran, 1991; Barnard, 2000; Baker & Melby, 1996; McCabe, 2004; Salyer, 1985; Wojnicki-Johansson, 2001).

The participant observation of Phase Three took place after participating nurses had been given the education program addressing the communication barriers identified in Phase One.

The nurses observed in this phase were more forthcoming with their communication activities. Although the patient situation was similar to the first observation phase where there were no more nurses to care for them, the nurses communicated each time they attended to the patient. Nurses were more deliberate in their action and were observed to have touched the patient's hand and looked to the patient's face even though the patient's eyelids were closed. Although nurses did not employ touch as a means of communication in Phase One perhaps due to cultural and religious practice, this lack of touch was not apparent in Phase Three observation. Nurses were observed to touch and established eye contact with patients more often than before. Thus, as reported by (Ashworth, 1980; Mohamed Hatta, 1999; Stanton, 1991) the use of touch as a form of communication to provide support, comfort, security and reassurance to patient in the course of duty should be encouraged and accepted within this cultural and clinical context.

The contents of communication were more elaborate where explanation on the procedures was given. There was a nurse who even informed the patient of the day and time before explaining the procedure. This demonstrated that the communication education has made a positive impact on nurses.

The time spent on communication remained short, between 7 to 15 seconds, but was longer than that observed in Phase One, which was between three to ten seconds. Older patients were addressed by 'uncle' or auntie', a common sign of respect for older people amongst Malays, and younger patients by their name. Calling patients by name or designation gave a personal touch to them and the relatives felt this shows a more personal approach to care. The short time spent communicating was perhaps due to the unresponsiveness of the patient where nurses do not wait for a response to continue communicating. Crotty (1985) considered communication under two minutes too short to impart information and to receive any response from the patient, especially those who were under sedation or critically ill.

ICU milieu

The observation of the ICU milieu considered environmental factors that impacted on communication. The effect of noise and lighting on the patients' ICU stay has been documented (Gelling, 1998; Kawada & Suzuki, 1999; McLaughlin et al, 1996; Stanton, 1991) and noted to have partly caused physiological as well as psychological disturbances. The ICU syndrome is one example of psychological effect attributed by many factors including noise. While many studies found noise was as a factor contributing to the occurrence of sleep disruption, one study (Gabor, 2003) concluded that noise accounted for only 30% of sleep disruptions in the ICU.

In the present study, the researcher noted that noise had been mentioned as a concern in the ICU but did not directly affect communication although there were conscious patients who commented that it did affect their sleep. Among the main sources of noise were the nurses and staff themselves who talked loudly and the noise from the monitoring devices and air-conditioning unit of Hospital A. Noise from staff conversation had been described by patients as a nuisance but did not affect their ICU stay as most of the time they were sedated. Patients commented on the noise which they experienced when they were conscious in the unit. Once patients had regained consciousness they were transferred out of the unit within a day or two, so the impact of noise on patients' rest was limited.

Interestingly, it was nurses who mainly commented about the noise in the unit. This was attributed to the number of staff on the unit and the noise level of their own conversations. They realised this was a negative aspect of ICU care, but cited the unresponsive state of the patients had caused them to forget they created a lot of noise while on duty.

The noise level indicated measurements between 64dB to 101dB which was considered high in comparison to international standards of 40dBA- 45dBAs (Akhtar, 2000; McLaughlin et al., 1996; Stephens, 1995). Noise level was recorded in the higher range during doctors' rounds, passing over reports in the afternoon and visiting hours. Staff must be informed about the effects of continuous exposure to high noise which is detrimental to patients' well-being due to sleep disruption and sensory overload (Albarran, 1991).

Lighting was also mentioned by a small number of conscious patients as a factor contributing to discomfort in the ICU but not affecting communication. The relatives reported the lighting was adequate and not a problem for them. The patients who had been conscious in ICU and who had been lying supine felt the discomfort of having the bright lights glaring down on them and for some this equated to continuous daylight. They could not discern night or day. As for the nurses, they usually switched off the bed lights if not attending to the patient. This was a problem in Hospital B where the lights were controlled by a single switch which lit the lights of one side of the unit and another switch controlling the other side of the unit.

The discussion above has highlighted some of the barriers to communication as experienced by nurses, patients and relatives from the two ICUs studied, in particular clinical status of the patient, staff workload, staff shortages, staff experience, hierarchical status of staff and relatives, technology and socio-cultural aspects. The following discussion focuses on the research questions posed in Chapter One.

7.3 Answers to Research questions

Research question 1

Current pattern of communication of a multicultural ICU

As mentioned above, although the nurses and patients were of different ethnic backgrounds, this was no hindrance to the use of the common Malay language as it was well understood by the patient sample in this study. Should patients faced difficulty in understanding, relatives were on hand most of the time to help in translation, which did not occur in the present study.

Nurses who were not knowledgeable about the beliefs and religious practices of other ethnic groups could easily seek assistance from colleagues from within the unit. It is usual for a Malay patient to seek a Malay nurse to discuss matters that have religious implication and vice versa for a Chinese patient or an Indian patient. During the study, the researcher only encountered one relative who commented that she felt uncomfortable when she asked an Indian nurse to offer water that had been religiously chanted to the patient, fearing it could lessen the intended effect as the nurse was from another belief. Other relatives and patients did not mind whoever delivered any religious offering meant for them. Nurses of different religious backgrounds willingly

allowed the relatives to offer prayers or practice their religious rites as long as such practices did not interfere with prescribed medication.

Research question 2
Recollection of ICU patients of their ICU experiences

Most patients interviewed could not remember their stay in the unit. Patients lamented their memory loss due to sedation. They were prescribed Midazolam which resulted in temporary loss of short term memory (Hirshman et al., 1999). Besides the sedation, patients cited drowsiness and being asleep most time as reasons for the loss of memory. Only four patients (19%) remembered their ICU stay as they were conscious during that time. This was contrary to the findings of others (Bergbom-Engberg et al., 1988; Green, 1996) who found 52% -92% of patients interviewed remembered their ICU stay.

Patients could not provide much information about their ICU stay as they usually were transferred to the ward upon awaking from sedation. The main exception was a lady who was conscious all the time in ICU. She described the nurses as busy all the time and occasionally would ask how she was getting on when they passed her bed. Although she regretted the nurses did not have time to communicate to her, she accepted it as they were busy. Another patient who remembered her stay was a 19 year old girl who had surgery. She remembered her stay in the unit but was not able to recognise the nurses as she had to lie flat and could not discern the nurses' face. She reported dissatisfaction with care given as most times she had to yell for the nurses as they seldom attended to her.

The researcher was not able to gather information from patients on nurses' communication because patients interviewed could not remember their stay despite interviews being conducted soon after their discharge from the unit. Only those who had gained consciousness and remained in ICU for sometime could vaguely remember that nurses spoke to them but not the details of the communication. This was contrary to findings by Bergbom-Engberg, Hallenberg et. al (1988) who conducted interviews by phone to patients six months post discharge from ICU and more than 50% could remember their stay. These patients needed respiratory treatment and were conscious during their stay.

Research question 3

The environmental factors that influence patient communication in an ICU

Although the nurses, relatives and patients commented on some of the environmental factors like noise and lighting as shortcomings that were present in the ICU, these were not reported as directly affecting the communication between nurses and patients.

The environmental factors mentioned above contributed to patients and nurses discomfort but did not affect communication among both parties. None of the participants voluntarily highlighted the influence of these environmental factors during the interview until the researcher prompted the questions on environment.

It is therefore appropriate to conclude that for this study the environmental factors like noise and lighting were not considered to be a major barrier to communication as described by Gelling (1998). However the discomfort and disruption to rest patterns remains a concern. As patient stay in ICU after regaining consciousness is short, the disruptions to rest patterns are minimised. Usually it is a matter of a couple of hours before the patient is transferred to the wards after gaining consciousness.

Research question 4

Communication related experiences the family members had while visiting the patient in the ICU

Both positive and negative comments from relatives on their communication experiences with nurses were reported. Most relatives reported they were happy with the nurses' communication and had no comments. When nurses tell them the patients were fine, answered their questions, and were friendly to them and most importantly were not angry for asking questions, these were considered indicators of good communication by relatives.

Relatives expressed gratitude that nurses were approachable compared to the past, but hoped nurses could be more forthcoming with patient information. Before 1990s, nurses in public hospitals were frequently reported to be fierce and unapproachable (Chua, 2000) and this was also mentioned by one of the patients interviewed (Pat#21). Relatives reported that it was not sufficient for nurses to just tell them the patient was fine, asleep or not responding. She should know about changes to the patient's condition record and decisions made by the doctor as she was the privileged person

caring for the patient. Relatives who were dissatisfied with nurses reported that nurses lacked knowledge about the patient and were not helpful to their needs. A relative who was an educated lady reported nurses did not know about her mother's care and refused to answer her questions. When nurses were asked about this lady, the nurses said she was a very difficult client to handle and one they were not confident to deal with.

Although the ICU staff and relatives were of mixed ethnic group, no problem with language was reported or observed. They all could speak and understand the official Malay language even though some spoke haltingly. Cultural differences were not found to be a problem and nurses were sensitive to the different practices of the different ethnic group. Neither nurses, relatives nor patients cited any problems with religious rites.

Research question 5
Main factors which influence communication in a multicultural ICU setting

The majority of the patients, relatives and nurses were Malays, language did not appear to hinder the communication activities. The few patients from different ethnic groups did not encounter any language difficulty as they could all converse in Malay or English. The availability of assistance in translating either Malay, Chinese or Indian language by relatives when needed eased the challenges associated with different cultures in Malaysia.

The cultural backgrounds among the different ethnic groups were not reported as a deterrent to delivery of care as nurses were sensitive to the different cultural needs of each of the three major ethnic groups in the country. Although the researcher anticipated some cultural and religious differences in the study, this was not apparent at all from the reports of all the participants. Malaysians are generally tolerant to the many different ethnic groups and political and community leaders have always encouraged integration, especially when the different ethnic groups celebrated their various festivals, where all will celebrate together (Culture of Malaysia, 2007). Nurses only cited differences in culture and language among the foreign patients who were admitted to the unit. They made up 8% of the ICU population. Such foreigners similarly experienced language barriers as reported by Danilowicx and Gabriel (1971) and Anthonypillai (1993) where the minority ethnic group faced difficulty communicating with the English speaking community.

Research question 6

ICU nurses' perceptions of the communication needs of ICU patients

Nurses acknowledged the importance of communication to ICU patients but reported that it was neglected due to the unidirectional mode; the lack of time due to heavy workload; and precedence of physical care over psychological care. If the patient was conscious and able to respond, communication occurred more frequently. This is congruent with findings reported by Ashworth (1980), Turnock (1991), Elliott and Wright (1999) and Alasad and Ahmad (2005) that nurses communicate more to responsive patients.

Unresponsive patients were communicated to less frequently but nurses reported they felt this did not compromise their care. There were 55 (66%) nurses who reported they seldom communicate with the patients in the questionnaire and 26 (31%) reporting they communicate with the patients. During the observation periods, nurses were noted to attend to the patient on average twice during the two hour observation, with some patients not being attended to at all during the observation period as their hourly observations were just read off the monitors, meaning even less communication. Very ill patients were attended to more frequently if they had more monitoring devices attached, but at each attendance the nurse checked the recordings of the device with no verbal communication initiated. The nurses in the study were observed to attend to the machines when the alarms triggered but did not pay any attention to the patient or explain why the alarms triggered, a finding also reported by Ashworth (1980) over 25 year ago.

Nurses' reliance on technology to assist with care tended to reduce the stimulus and opportunity to communicate with patients. They did not need to inform patients of impending monitoring procedures like taking their pulses or blood pressure. The ventilator settings showed the patient's breathing rhythm and they did not need to check with the patient if he was breathing comfortably. Newly graduated nurses spent more time attending to machines than patients. They lacked the experience to recognise physical signs of deterioration of the patient and relied on the machines. Experienced nurses on the other hand were able to use the machine as an extension of their skills in recognising the changes in sound or the displayed recordings to reflect the patient's

condition (Ashworth, 1990). They did not give communication a priority as observed in the participant observation

Research question 7
Strategies developed to improve nurse communication in ICU

The education session with the nurses in ICU was one of the approaches employed to help improve communication in the ICU. The inclusion of the nurse managers in discussing the identified barriers was one way of enlisting their support and their involvement to muster their staff for the education program. It also brought to the managers' attention issues identified in Phase One of the study.

The researcher proposed the following strategies to improve nurse communication in the ICU, among which included continuing education, role modelling, reading research articles and for nurse managers to play an active role in addressing communication as an important aspect of ICU care. The researcher identified role modelling as an important element to assist education as she observed nurses were compliant if the proposed change were initiated by authoritative personnel like the nurse manager.

Of particular importance for this study was the presence of high numbers of newly graduated nurses in the two hospitals. They reported their lack of communication knowledge and experience during the interviews. Their inexperience at least has the advantage for training as they would not have to 'unlearn' their previous experience and have not been exposed to 'incorrect' practices. Although communication was taught in the nursing program, the importance of communication to ICU patients among new nurses must be emphasised to new nurses to prevent them from being overly dependent on machinery for patient care (Wilkinson, 1992). To effectively communicate, nurses need to be focussed on caring for their patients, have a conducive environment and support from management (Chant et. al, 2002). The Nursing Division of the Ministry of Health Malaysia (Abdullah, 2006) has introduced etiquette for all public hospital nurses to practice in 2006 where nurses are encouraged to smile, greet, and be courteous and responsive to patients and relatives. An award is offered annually to an individual and nursing department voted having demonstrated these virtues by their clients. The first award was presented in March 2007 and the researcher was asked to be the chairperson for the selection committee.

Research question 8

Strategies nurses use to meet the patient's communication needs.

There were very few conscious patients in the ICU for as soon as the patient gained consciousness they were transferred out to the ordinary wards. Therefore when nurses were asked about the subject of their communication strategies to meet the patient's needs, their immediate response was there were few instances where these were needed. The participant observations revealed the conscious patients were too exhausted to make any communication efforts to the nurses while the nurses were rarely by the patients' bedside to notice if they needed assistance or to make communication efforts.

The focus group interview disclosed the nurses' knowledge on what communication aids can be employed to help patients like pen and paper, sign language and verbal communication wherever this was suitable. The nurses assessed the communication needs of the patient and would use available means to communicate, usually incorporating the above mentioned methods.

Other strategies employed by the nurses were getting relatives to discuss with patients what their needs were. This rarely occurred but it was usually with patients of different ethnic backgrounds and the elderly as relatives were more aware of the individual needs. Nurses asked relatives to touch the patient and communicate prayers and their religious practice whenever they visit This aspect of social support to the patients was reported by Hupcey (2001) where patients in the study expressed that their needs for interaction with relatives and loved ones were important. Hafsteindottir (1996) also reported the positive impact relatives have on the patients when they communicated to them.

Research question 9

How the educational module improved nurses knowledge on communication.

From the focus group interviews of nurses who attended the teaching session, the nurses reported that it had augmented their knowledge in communication and re-enforced its importance to patient care. It was not new knowledge to many of them as they have had communication lectures before, but the lack of emphasis on communication practice relevant to ICU made them forget its importance.

The education module gave the nurses options for the various approaches to communication. The teaching mode that incorporated various learning methods (Knowles, 1980; Masui & De Corte, 2005; O'Shea, 2003) paved the way for discussions and learning from each other. As was noted in Chapter Six, nurses were satisfied with the conduct of education program and gave positive evaluation of the program. It reminded them of their past knowledge on communication, particularly the senior nurses who had attended communication seminars before. This instilled a renewed desire to practice effective communication and to supervise the new staff.

The researcher felt that informing the nurse managers of her findings and getting their support was another way to ensure the education program contributed to the nurses' awareness and willingness to improve their communication skills. As reported by other researchers (Albarran, 1991; Ashworth, 1980; Bowles, 2001; Crotty, 1985; McCabe, 2004) the education on communication should be an on-going matter as continuing education helped to reinforce existing as well as new knowledge (Masui & De Corte, 2005; Sparling, 2001). This is an avenue for nurse educators and managers in Malaysia to seek appropriate modes of communication education to improve nurses' communication skills. The suggestion is timely in view of comments by the Director General of Health in Malaysia (2006) criticising nurses about their communication practices.

Summary

This chapter has discussed on the findings from Phase One and Phase Three of the study and has addressed the research questions posed in Chapter One. The results of the findings have identified the lack of communication between nurses, patients and relatives in the two participating ICU. This was consistent with several areas discussed in the literature review. The contributing barriers to communication were then prioritised and those that were amenable to change formed the contents for the education program of Phase Two. Phase Three evaluated the effects of the education program on the participating nurses' communication activities.

Clinical status of the patient, staff workload and staff shortages, and staff inexperience were identified as the most common communication barriers in this study that significantly impacted the nurses' communication activities. Despite all these barriers being identified by other researchers over the last two decades (Albarran, 1991;

Anthonypillai, 1993; Azoulay, 2002; Belitz, 1983; Bergbom-Engberg & Haljamae, 1993; Borsig & Steinacker, 1982; Burlew, 1981; Harrison, 2002; Heath, 1989; Hupcey, 2000; Llenore & Ogle, 1999; McCabe, 2004; Rosenthal, 1996) along with Ashworth's (1980) landmark study, were problems with communication between nurses, patients and relatives in ICU are still reported (Alasad & Ahmad, 2005) and was found to be a major issue in this study. The factors contributing to poor communication remained similar too, particularly patient's clinical status, staff workload, experience and technology (Alasad & Ahmad, 2005).

In this study the researcher implemented an intervention phase followed by an evaluation phase. The intervention phase of educating nurses on ways to ameliorate communication barriers was positively evaluated by the nurses. The participant observation of Phase Three reported positive changes in the way nurses communicated to the patients.

Although environmental factors like noise and lighting were reported by some researchers as contributing factors to poor communication (Chew, 1986; Dyer, 1995b; Weich, 1992; Wojnicki-Johansson, 2001), this study reported little evidence of these being major factors. Environmental noise and lighting were experienced as a discomfort for very few patients; all the other patients were unaware of the noise and the lighting in the unit as they were sedated or unconscious most times. Likewise, cultural differences and religious beliefs did not substantially affect communication as was anticipated by the researcher and reported by other researchers (Anthonypillai, 1993; Blackford, 1997; Danilowicx & Gabriel, 1971; Josipovic, 2000; Orb, 2001). Nurses, patients and family members did not consider language as a hindrance to effective communication. Even the elderly Chinese Malays or Indians who could not converse well in the Malay language always had someone from the family to assist, re-enforcing the important role families and relatives play in caring for critically ill patients.

The observation of nurses following the education program showed that they attempted to improve their quality and quantity of communication. It is premature to make any concluding remark on the effectiveness of the education program because a single education session will not necessarily cement change in the attitude of nurses. Perhaps an evaluation of the education program two months later would have given more reliable information on the effects of the program. If there is a mechanism whereby the

senior nurses could influence the junior nurses and be role models in communication with the support of the nurse managers, it may be possible to enhance communication over a sustained period of time.

Finally this study has demonstrated the worth of implementing an intervention and an evaluation phase towards improving communication, as it gives the researcher an insight to the possible approaches of improving communication if she were to conduct a communication education program at her place of work.

7.4 Limitations of the study

The study has several limitations included the attrition of nurse participants, potential observer bias, instrument reliability statistical power, time and generalisability. These are explained in more detail below.

Attrition rate of nurses

The nurses' small sample in Phase Two was due to the difficulty of gathering nurses who had participated in Phase One to be on similar shifts for the education program. The conduct of the education program was done over two separate days and morning shift nurses were not willing to stay back after their duty hours to attend. The unit manager informed the nurses the education program attended would be included as part of their continuing professional development for their annual appraisal.

Observational study bias (Hawthorne effect) on the study

A limitation that frequently affected observation type of data collection was the Hawthorne effect (Leathart, 1994; Litwin, 1995; Polit & Hungler, 1995, Westbrook et al. 2007) whereby those being observed modified or changed their behaviour in response to the presence of the observer.

The Hawthorne effect was not observed in this study as the nurses were used to being observed for other studies conducted in the ICU. A week prior to the study they were observed for the Quality Audit which occurs every six months. Nurses' informed the researcher they were used to being observed by people from other organisations conducting various studies in the unit.

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Reliability testing of instruments

This was the first time a study on communication in ICU was conducted in Malaysia and the researcher adapted an instrument used in another study to suit the local need. The questionnaire adapted has been tested in the other study and only minor changes were incorporated. The semi-structured questions for the in-depth interview were exhaustive and explored on most of the factors related to communication.

Evaluation of education program

This is another limitation to the study. As the evaluation program was conducted one week after the second observation and in-depth interview, the results were inconclusive even though the researcher reported change in the nurses' communication. Another evaluation conducted after two months should have been done to justify any change in communication practices by nurses.

Relatives' trustworthiness of providing data

The data from the relatives were treated with caution and may not reflect what their intention. Most relatives were reluctant to openly criticize the nurses' communication as they felt gratitude to what nurses have done to the patients who were very ill. The concept of good communication is opened to criticism as well as the relatives interpret it as being friendly, smiling and answering their questions when asked. This was a change as to what has been in the early 1980s where nurses from public hospitals were considered fierce and unfriendly.

Size of ICU and sample

The study was conducted in two state funded hospitals which although were typical of public health facilities in Malaysia may not be representative of ICU across Malaysia. The small sample size of nurses, patients and relatives in the study restricts the researcher's ability to generalise to the wider population.

Furthermore the study was conducted in the ICU of two public hospitals and may therefore not be representative of the ICUs in private hospitals and the semi-government hospitals.

Power relations of researcher, patients and family members

The researcher who was a nursing tutor for the ICU course was considered a senior staff member as some of the nurses was her previous students. Others still remembered the researcher from previous associations. The researcher felt that though this has an advantage of being accepted by the staff, on the other hand, nurses might not be communicating the actual problems with communication. The researcher has informed them to give their honest opinion to improve nursing condition in the future.

The feeling of gratitude to nurses by patients and family members may be a factor for them to be hesitant in passing any negative comments on nurses. In the initial stage of the interview both the patients and family members were wary of the researcher's role and designation in the health team. The researcher had to explain more than once in some cases that she was not a staff member on the unit and the purpose of the study was to explore their feelings on communication with staff. This was to thwart off any fears the patients and family members have and assist them in describing their actual feelings. As the interview progressed the patients and family members felt comfortable and they talked freely, but some still displayed caution.

Recall bias

A further potential limitation is the patient's recall bias. It was overcome by interviewing the patient soon after he/she has settled in the ward post-transfer from ICU and they have regained their composure.

Limitations of in-depth interview translation

Interviews were conducted in Malay or mixed with English to all participants. Translating to exact meanings might be distorted sometimes as certain meanings were difficult to translate. The researcher sought the assistance of a qualified language teacher to verify the interpretations. Words which do not have exact translation were translated verbatim.

Another point considered was the relatives might be tired from the long and continuous stay in the hospital and in addition were worried about the fate of the patient, that they may not focus their attention to the interviews. This was reflected in the monosyllable answers they gave and the researcher had to probe for extended information. The researcher asked the relatives to state the suitable time for the interview. The relatives

preferred the interview before or after visiting hours. During visiting hours there will be more family members around and they preferred to be with their families.

Relatives who felt they have not been entertained appropriately by nurses took the opportunity to report the communication of certain nurses as is the case with three relatives who were not satisfied with the nurses' communication.

Time
Time was a constraint for the researcher. If an extended time was available for the data collection, the researcher would be able to include more nurses and approached more patients and relatives for a bigger sample.

Distribution of questionnaire for Phase Three was carried out by the unit managers as they knew the duties of the staff named. The researcher did not engage an external helper to distribute the questionnaire as the person may face difficulties identifying the staff concerned.

Despite the limitations mentioned, this study has contributed new information on communication barriers in a Malaysian setting and could be used for as reference for future study.

CHAPTER EIGHT

Conclusions and Recommendations

This study has provided useful insights in understanding the barriers to communication in ICU in Malaysia. Even though it was the first study on communication barriers conducted in two public hospital ICUs in this country, many of the findings concurred with those reported by nurse researchers from other developed countries. Language and cultural differences among the nurses and clients was not a

In concluding, the researcher has proposed recommendations based on the research findings to assist nurses with communication so they can work more effectively in the delivery of patient care in the ICU setting in Malaysia. The recommendations hold relevance for bed side nurses, managers, educators and principal personnel in nursing and health officials who are policy-makers.

8.1 Conclusions

This study has described and identified the communication barriers between nurse and client in an ICU setting. The lack of communication identified was related to the clinical status of the patient; staff workload, shortage and inexperience; hierarchical status of staff and relatives; and technology. Factors amenable to change like staff workload, hierarchical status of staff and technology were incorporated in an education program to nurses followed by an evaluation of the education program on nurses' communication. Nurses who attended the education program demonstrated positive changes to communication and were more aware of the need to communicate to patients.

Whilst other barriers like clinical status of the patient, staff experience and staff shortage cannot be directly addressed by the researcher, they were key issues impacting on the effectiveness and willingness of staff to communicate with the patients. There is a need for the management and personnel in authority to support and initiate incremental changes that can address staff shortages and plan for more post graduate education for nurses working in ICU. Personnel involved with nurse education should plan for a comprehensive communication syllabus incorporated in the post graduate

curriculum and make available short courses on communication as an in-service education program conducted periodically to ICU nurses.

The literature suggested nurses communicated poorly due to the unilateral communication mode and in this study, this unilateral mode not only ceased communication to patients, but for some nurses it was forgotten as nurses placed emphasis on the physical care and technology. Besides the unilateral mode of communication, lack of time, heavy workload, staff shortage and inexperience were reported as other reasons for lack of communication. In particular, inexperienced nurses allotted more time to learning the machines than attending to the psychological needs of the patients. Communication aids like pen and paper and occasional sign language were the mode of communicate used with conscious patients who remain intubated during their conscious state.

Although many patients reported they had few memories of their ICU stay and could not remember any communication with nurses, they hoped nurses would communicate and keep them informed of their condition to relieve anxiety. They reported the need for detailed information of their condition and were willing to participate in planning their care. Although most of the ICU patients are sedated and appear unconscious, it does not mean they are not aware of their surroundings. They should be continually informed of their condition and their orientation to time and place so as not to lose touch with reality and to allay their fears and anxiety. The patient's state of not being responsive should not be mistaken as a sign of unconsciousness and therefore the need for communication should not be neglected (Alasad & Ahmad, 2005; Gelling, 1998; Hagland, 1995).

Relatives expressed their need for detailed and frequent communication of the patient's condition and requested nurses to voluntarily impart information to them. The study identified that relatives proposed nurses should voluntarily impart information to them as they did not know what pertinent questions to ask. Although relatives reported nurses were communicating, friendly and obliging in answering queries about the patient's general condition the content of communication was insufficient to inform them about the patient's condition. It lacked depth and content with no information on what had been done or planned for the patient. ICU nurses should pay particular attention to the communication needs of relatives as they witnessed the patient's critical condition. Relatives who are adequately informed of the patients' wellbeing will be more

cooperative. They will be able to assist nurses in overcoming the state of fear and anxiety the patients feel as well as for themselves.

For the educated relatives, nurses need the confidence and knowledge to communicate and attend to the relative's queries regarding the patient's progress and condition. They should be allowed to disclose related information regarding the patient's general condition and progress. The researcher identified the importance of meeting the communication needs of the family and acknowledged their important role in providing support to the patients.

The diverse ethnic, cultural and educational background of the family members pose a challenge for the nurses to manage in public hospitals. Nurses need to be aware on the different psychological and spiritual needs of the various ethnic groups to avoid misunderstanding in religious practices. Even though the researcher thought that the multiracial and multilingual nature of the nurses and patients would impose some difficulties on care and communication this was not found to be the case in this study.

Communication has been recognised as a core competence required of a nurse in patient care. This is especially so for the critically ill patients and their family members who already feel intimidated with the ICU environment. Patients and family members have to accommodate to the many stressors of ICU stay as mentioned by the patients and relatives when interviewed and they need avenues to communicate their concern. The relatives and patients request that nurses communicate more were indicators that currently there is lack of communication by nurses. This was reported by the Director General of Health who received complaints from patients and relatives that nurses do not communicate (Bernama, 2006).

Although this study revealed that environmental factors like noise and lighting did not impact on communication by the patients and relatives, the nurses on the other hand indicated that noise from the machines partly contributed to their loud voices when communicating with their colleagues. This in turn contributed to the high levels of noise in the ICU, which caused some discomfort to the conscious patients.

Nurses who participated were found to be receptive to the changes proposed through the education program and there was a change in their communication activity suggesting

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that on-going education on communication could improve communication practices. Nurses' should always be prepared to provide good and effective communication to clients as it has been reported that effective communication transcends physical and physiological care of the patients (Belitz, 1983; Blacher, 1997; Dyson, 1999).

Being at the frontline of patient care in ICU, nurses have numerous communication responsibilities to patients, relatives and other healthcare staff. Nurses are always the first health professional to be approached by relatives and if nurses are not prepared for communication, they may resort to being evasive with relatives.

Continuing education is a way to regularly remind nurses to communicate and keep them informed of any current trends in communication. For the newly graduated nurses it is an avenue for them to update their knowledge on communication in the context of intensive care nursing. Confidence in communication allays inexperienced nurses' doubts when communicating with senior medical officers and educated or eminent relatives. Assigning a senior nurse to attend to relatives' queries may relieve the pressure on young and inexperienced nurses as well as provide a role model for junior nurses.

The preparation of nurses working in the ICU should give due consideration to communication issues as identified in this study. This is particularly important for newly graduated nurses who have no exposure to the critical care area during their training. They have to adapt themselves to the role of a new graduate, try to master skills associated with ICU care and learn about the many technical support devices on the unit. They also face the anxious family of patients with life threatening illness. Nurses who are well prepared and experienced do not suffer the emotional disturbance associated with these situations and remain working longer on the unit (Bergbom-Engberg & Haljamae, 1993; McCabe, 2004). Senior staff will not be as heavily burdened with the role of mentoring junior staff, which distracts them from the opportunity to communicate with patients and relatives (Alasad & Ahmad, 2005; Borsig & Steinacker, 1982; Topf & Dillon, 1988).

There should be greater collaboration with the doctors to agree on matters that nurses can discuss with family members and those that need to be referred to the doctors. This poses challenges to young nurses as they lack the confidence and knowledge to attend

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to family members and senior medical staff. Those in nurse leadership roles will need to initiate this process. The interest shown by the nursing administrators of the ICUs were commendable. They expressed their concern about the findings and agreed to support initiatives aimed at addressing communication problems in ICU.

8.3 Recommendations.

The recommendations proposed are meant to ameliorate the communication barriers and instilled appropriate communication behaviours among nurses which can only be possible with continuous feedback and education.

The following recommendations have been proposed to improve communication of ICU nurses.

Recommendation 1

Addressing staff and workload barriers

Health leaders have to address the shortage of ICU nurses. Whilst nurses have been criticised for their lack of communication, when workloads are unrealistic, then patient physiological demands become a priority. Nurse Managers need to ensure the designated quota of staff for the unit is employed so that the nurse patient ratio of 1:1 is observed for ventilated and highly dependant patients. This allows nurses to spend time with their patients, know the relatives and assess their communication needs effectively. Currently nurses have more patients to care for and they have to assess the physical and physiological needs which are considered more important, thus leaving the psychological needs unmet. Sometimes the nurse will be busy with her other patient or assisting her colleague, thus missing the opportunity to meet the relatives when they come round.

Nurses have identified time as the most crucial factor impinging on their communication activities. They were often burdened with many responsibilities that left communication as less of a priority compared to the physiological and physical needs of the patient. In the current study settings nurses were asked to trace laboratory results, fill requisition forms, collect supplies from stores, collect pharmaceuticals from pharmacy, contact doctors and many other non nursing duties which took up a lot of nursing time. This caused nurses to be away from patients and unavailable for relatives.

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As mentioned by a few patients who had gained consciousness in the ICU, they were not able to see the nurse attending to them as the nurse seemed to be busy performing other chores. Many of these tasks could be covered by clerical support in the ICU.

Nurse Managers could make arrangements with the staff to allocate time each shift to meet with the relatives and brief them about the patient's progress without waiting for them to ask. This would allow the nurse to be prepared with facts about the patient's data and prevent them being caught unaware with questions that nurses could not answer. When a nurse has to defer answering a question to check with another person, the relatives form a negative impression of that nurse. It has been reported that when nurses impart pertinent information to family members before the family ask questions, the satisfaction rate is higher (McCabe, 2004).

Even if the nurses are given extra time and education to improve their communication, applying the skills in practice may be hampered by factors like lack of role models and support from superiors. The inexperienced nurses and the new graduates who form the majority of staff in the ICU need support and guidance from the senior nurses and nurse managers to perform effective communication. Assigning a senior nurse as a mentor to junior nurses is a widely accepted approach to dealing with this issue.

The nursing report of the patients should document what has been communicated to them and relatives during each shift. This helps other nurses identify the continuing communication needs of the client while the nurse managers can evaluate the communication activities of nurses.

Another area discussed in the previous chapter related to staff barriers is power, social and hierarchical status between nurses, doctors and relatives. Improved relationships between doctors and nurses can be achieved with frequent meetings and discussions on the expected role of nurses and doctors. Clear role definition of each staff category with mutual respect for each other and emphasis on teamwork is crucial to improve the relationship between nurses and doctors, particularly senior doctors. Although the difference in role and status is still reported in present times the occurrence is reduced (Tate, 2003).

Recommendation 2

Education for nurses

Much has been written about communication education in response to the ineffective communication skills of nurses. These studies (Ashworth, 1980; Chant et al, 2002; Dyer, 1995b; Heath, 1989; Turnock, 1991; Wojnicki-Johansson, 2001) have all advocated that nursing education should emphasise communication skills for nurses from basic education through to post graduate training. Despite these suggestions and changes in curriculum, there is still dissatisfaction with communication between nurses and their clients as evident in the present study. This should inform nursing leaders and teachers that teaching communication should not end in the classroom but continue as on-going education in the workplace. The use of role modelling and discussion based on evidence together with short communication courses should be encouraged.

Education should emphasise the interaction between the different hierarchical groups and social standing including ethnicity, gender and status. Disparities between social status and power contribute to ineffective communication (Caris-Verhallen, 1999). Another area for communication education is the emphasis on nurses to properly assess the family needs (Hupcey, 2001). When nurses give relevant information to relatives, they can expect relatives help and cooperation. Nurse leaders and teachers should collaborate efforts to supervise staff and students of nursing on good communication practices and become role models themselves.

The unit managers should make arrangements for their staff to attend ongoing education on a rotational basis. One means by which the unit managers could get participation is by assigning staff to prepare a teaching module or present a case for discussion. Communication should always be included in the discussion so as to remind staff of its importance. Butler (1995) has advised nurse managers to continually improve nurses' interpersonal skills.

The unit manager should justify the subscription of journals related to nursing and ICU care and place them in the nurses' restroom to be read during the nurses rest period. To ensure staff read the journals, a proper recording system of those who have read them should be put in place.

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Recommendation 3

Role of nursing managers.

Nursing managers should play the role of advocate and educator as well as role model. They should be proactive in recognising the communication needs of staff and make efforts to improve it. They should acknowledge that communication needs practice, allowing for individual differences and social background influences.

Equally important to consider is the need to diffuse the hierarchical gaps existing between nurses and doctors/specialists. Frequent unit meetings with the nurses and doctors/specialists to discuss issues regarding patients and their care and continuous reminders of the partnership relationship between nurses and doctors can bridge the hierarchical gap. Although this may not be acceptable to some of the specialists, the frequent meetings will enhance rapport and support good relationships between nurses and doctors. Doctors should give clear instructions to nurses on what information they can divulge to patients and relatives and make the necessary arrangements in case the clients wish to speak to the doctor.

Nurse managers can encourage communication through the implementation of staff assessment which considers communication skills as part of the evaluation in yearly appraisal. Nurse managers and educators could prepare a checklist on communication evaluation and emphasise to staff the need to voluntarily impart information to family members and to be more approachable.

Recommendation 4

Improving environmental factors - noise

As nurses and medical staff were found to have contributed the most noise, change should begin in-house. Nurses must be wary of the noise caused by them when speaking with their colleagues, therefore each must constantly remind each other to minimise noise. Nurses should not speak with each other across cubicles, nor speak on personal matters when performing procedures on the patient. Alarms should be attended to immediately. Place monitors that give off continuous noise away from the head-end of bed. The unit may be busy and the presence of many staff will contribute to noise. The strategic placement of 'Silence' signs can remind all staff to lower their voices in the ICU.

Although noise and lighting may not have overtly affected communication in this study, it is worthy to note that efforts at minimising the noise level in the ICU may trigger a chain effect. Some perpetrators of noise like nurses and staff conversation will scale down if each staff reminded one another or even placed 'Silence' signs in the unit and encourage staff to attend to alarms promptly.

Implications for future research

Although all these recommendations seek to improve communication between nurses and clients, there is no assurance that problems associated with nurse patient communication will be kept at bay. New research findings will continue to identify shortcomings of nurse client communications in the hope of answers and solutions. Further research in this area may reveal new problems or barriers and hence new proposals and suggestions with the eventual effect of improved if not effective communication. The potential for new computer technologies to enhance communication through touch pads and translation may offer an improvement in communication.

The use of a multidimensional approach to inform communication barriers in this study is worth considering for future research. While most patients were not able to remember their ICU stay due to the sedation, this may not be as large a factor to consider with the current practice of limiting the use of sedation and the use of new modes of ventilation where patients are more often conscious in the ICU.

Summary

Despite the recommendations to improve communication for ICU patients being advocated by researchers over the last two decades, current findings (Alasad & Ahmad, 2005) report that poor communication still persists. Responses from nurses and clients on communication were remarkably similar and consistent about how nursing efforts at communication lacked depth and quantity. Many of the responses explaining poor communication were consistent with existing evidence found during the literature review; these were the clinical status of the patient, staffing and workload, technology and socio-cultural factors. These findings suggest that the results may have some external validity and may offer insights to nursing educators, nursing managers and

policy makers to adopt or consider the recommendations forwarded. Specific communication barriers need specific education intervention to be implemented.

Even though the intervention phase reported positive changes in the way nurses communicate to the ICU patients, there is need for continuing education on and monitoring of communication to ICU patients. The effectiveness of longer term strategies would provide a suitable subject for further research. Incorporating research findings and evidenced based practice can help enhance communication and there should be a continuous effort to improve on effective practices such as role models.

In conclusion, although this study is small and cannot be reflective of all communication practices in the Malaysian context, it is a beginning effort by the researcher to address this aspect of care that has of late been a concern for the policy makers in the Malaysian Ministry of Health (Bernama, 2004; Chua, 2005; Bernama, 2006). The latest concern was reported during a speech of the Health Minister to commemorate the 2006 Nurse's day (Samy, 2006). Malaysian nurses' were said to lack communication and were not effective communicating to clients. He called for a review of the present nursing curriculum to be reflective of current needs.

Many of the barriers to communication identified in this study are common to those previously identified in non-Asian countries. There should be continuous effort by nurses in the ICUs to be prepared and reminded to communicate effectively to their clients. Patients and their relatives have a right to demand and receive the highest quality of communication in the highly complex and often stressful health care environment of intensive care.

"Perhaps the single most important suggestion we could make is that health professionals become willing communicators with patients. For the near supine patient caught in a situation of near helplessness communication is about the only mode of activity through which he can affect his environment and work out suitable coping strategies.'

Garrity T.F & Klein R.F (1975)

"Communication is a continual balancing act, juggling the conflicting needs for intimacy and independence. To survive in the world, we have to act in concert with others..."

Deborah Tannen (1996)

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APPENDICES

Appendix 1	Diagram layout of Hospital A
Appendix 2	Diagram layout of Hospital B
Appendix 3	Information sheet for nurses
Appendix 4	Consent form for nurses
Appendix 5	Questionnaires for nurses
Appendix 6	Phase Three nurses' questionnaires
Appendix 7	Observation of nurses and ICU milieu
Appendix 8	Patient's interview questions
Appendix 9	Relative's interview questions
Appendix 10	Nurses focus group interview questions
Appendix 11	Patient's information sheet
Appendix 12	Patient's consent form
Appendix 13	Relative's information sheet
Appendix 14	Relative's consent form
Appendix 15	Phase Three nurses' focus group interview questions.
Appendix 16	Education program lesson
Appendix 17	Ethics Committee Approval
Appendix 18	Hospital Approval
Appendix 19	Confidentiality for transcriber

APPENDIX 1

Layout plan for Hospital A
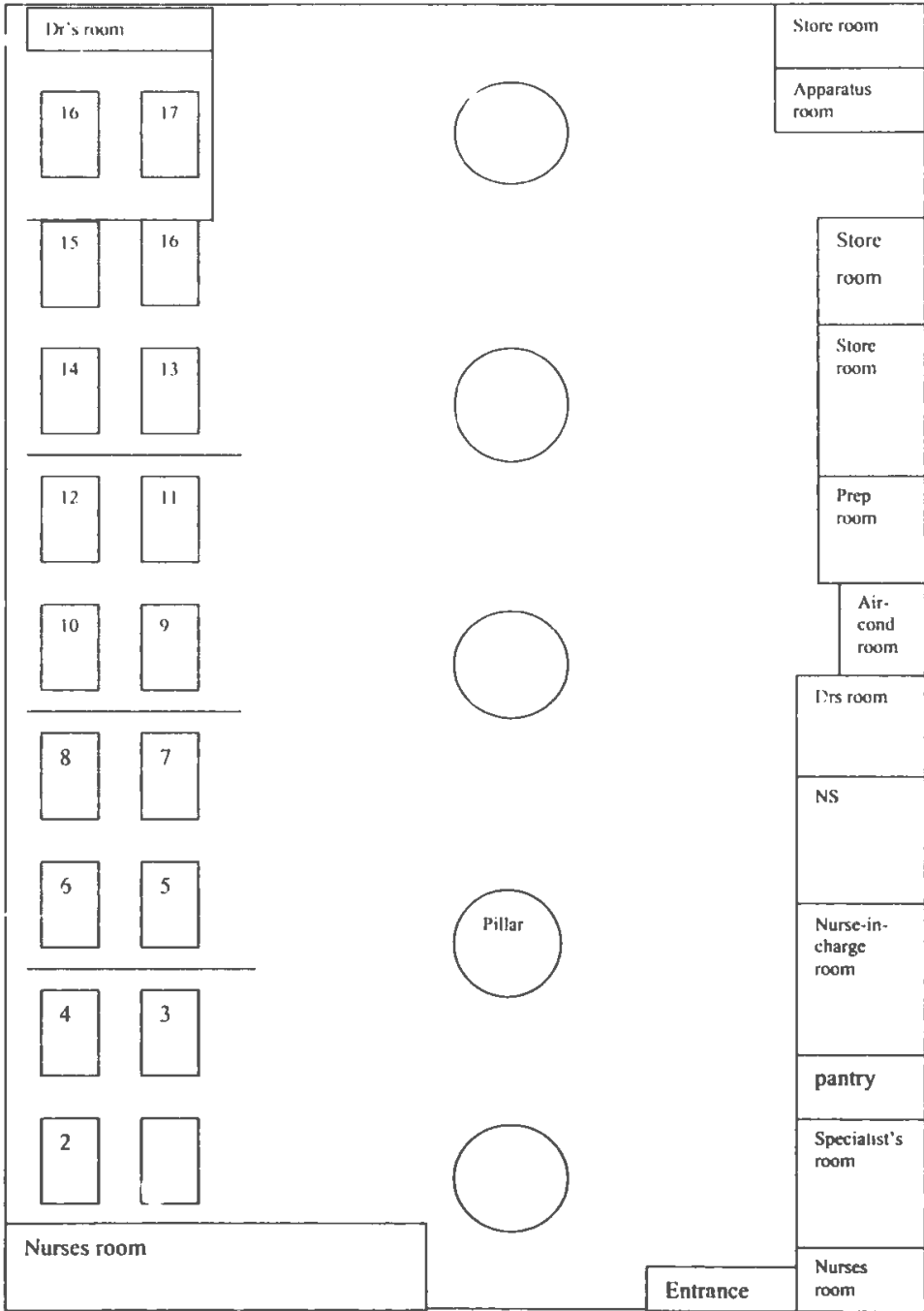
APPENDIX 2

ICU layout of Hospital B
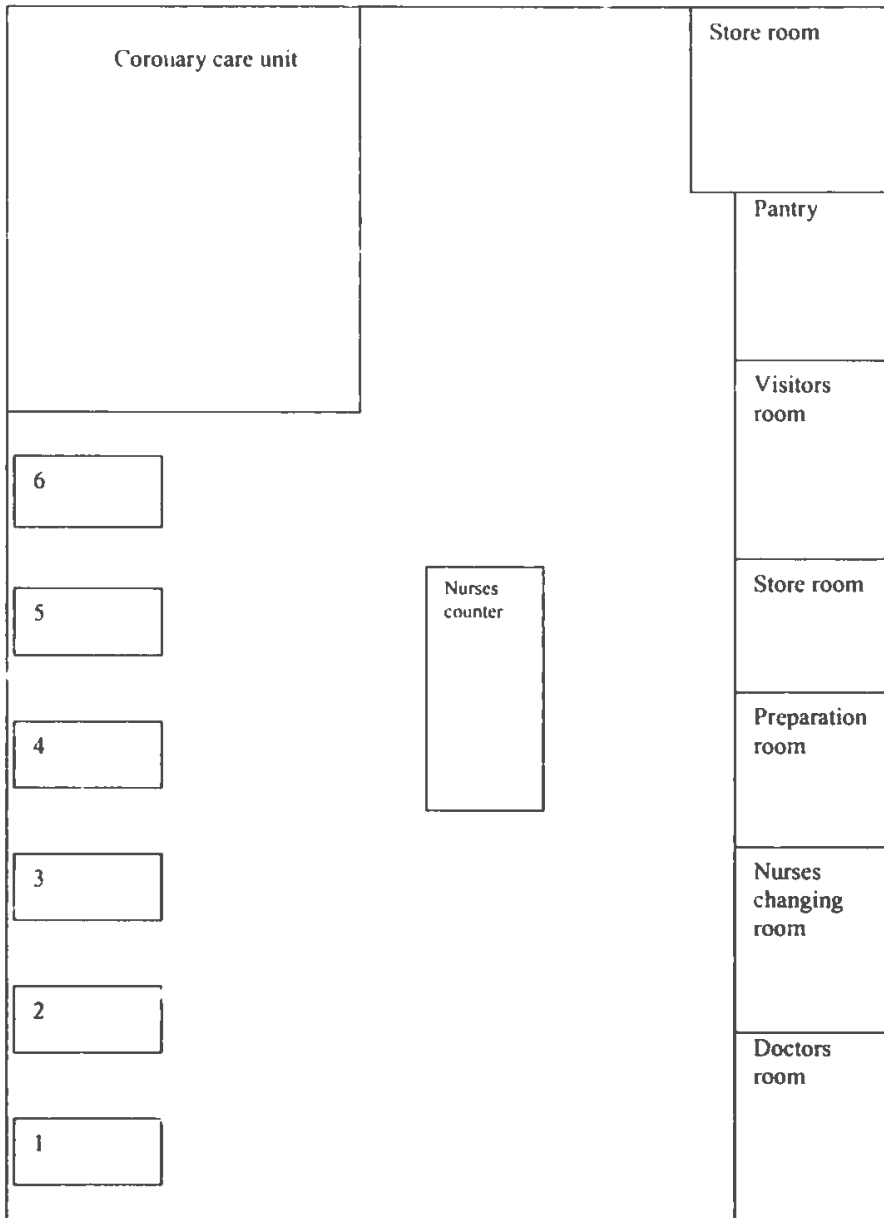
APPENDIX 3

Information for nurse

Dear colleague

My name is Faridah Binti Hashim and I am a PhD student in Nursing from Edith Cowan University, Western Australia. I am currently studying the barriers to effective nurse-client communication in an Intensive Care Unit.

My project title is "**Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units**"

In this study I hoped to identify barriers to communication and prepare an education program to reduce these barriers. It is then hoped that communication between nurse and client will improve in ICU.

The procedure involves answering a questionnaire that is attached to this letter. I appreciate your cooperation in filling out the questionnaire.

I will also be collecting data through observation of communication that is taking note of the interactions occurring between nurses and patients, observing communication of nurses during their attendance to nursing care and other factors that may affect communication like noise, bright lighting from the ICU environment. Following that a focus group interview session will be conducted to find out more about communication and its barriers. This interview session will be audio-taped and will be kept in a safe place to ensure confidentiality. It will take about one hour for the interview session.

The second phase of the study involves delivery of an education package prior to which a pre-test on communication barriers needs to be answered. The evaluation phase of the teaching includes a post-test and a focus group interview.

Your consent to answer this questionnaire, indicates you agree to participate in this study.

Please be assured that your identity and your responses will be kept confidential and the materials obtained will be used solely for the submission of my work on this project. I would appreciate your honest opinion in answering the questions asked. The findings may be of benefit for patient satisfaction and will help improve nurse-patient communication in an ICU setting.

Should you find you have any questions concerning the project, please contact my principal supervisor at the following address.

Associate Prof Gavin Leslie
Coordinator
Postgraduate Clinical Nursing
Edith Cowan University
Pearson Street, Churchlands
Western Australia, 6018.

Should you have any complaints or concerns regarding the project, please direct them to

Kim Gifkins
Research Ethics officer
Building 1.333
University of Edith Cowan
Joondalup Campus
Joondalup
Western Australia, 6027

My contact address is
Faridah Hashim
Faculty of Medicine and Health Science
University Technology MARA
Jalan Othman, Petaling Jaya 46000
SELANGOR,

Thank you for your kind cooperation and in anticipation of your help.

Yours sincerely

Faridah Hashim

APPENDIX 4

Consent for interview (nurse)

I, (please print)..

have read the information regarding the research project attached.

I agree to participate in this activity realizing I may withdraw at any time.

I agree that the research data gathered for this study may be published provided that I am not identifiable.

I understand that I will be interviewed and the interview will be recorded and the recording will be kept in a safe place and erased once the interview is transcribed.

Signature of participant

....   Date ....

Signature of researcher

....   Date ....

Thank You .

Please return this to:-

Faridah Hashim

Faculty of Medicine and Health Science

University Technology MARA,

Jalan Othman, Petaling Jaya, 46000,

SELANGOR .

APPENDIX 5

Nursing questionnaire

Part A - Personal details

(For official use . Code :)

Please fill in the following .

Designation (Please tick)

Staff nurse	1	
Assistant nurse	2	
Nursing sister	3	
Medical assistant	4	

Gender (please circle),   M   F

Ethnic group: ....

Age (Please tick)

25 years or below	1	
26-30 years	2	
31-35 years	3	
36-40 years	4	
41-45 years	5	
46-50 years	6	
51 years and above	7	

4.   Approximate length of service

Years	Months

5.   Approximate length of service in Intensive Care Unit

Years	Months

6.   Nursing Education. (Tick where applicable, may be more than 1)

Certificate	1	
Diploma	2	
Degree	3	
Masters	4	
Others (specify)	5	

7.   Post graduate qualification in Intensive Care Nursing. (Tick where applicable)

Yes	1	
No	2	

8.   Marital status (Tick where applicable)

Single	1	
Married	2	
Divorced	3	
Widowed	4	

9 Language spoken (tick the most appropriate. You may have more than one choice)

	Fluently (1)	Moderately (2)	Poorly (3)	None (4)
8a)Malay				
8b)English				
8c)Chinese				
8d)Tamil				
8e)Others(specify)				

Part B

(For each of the following questions from Q1- Q14 , please give a value from the table below that you think best describes the situation)

All the time	5
Most of the time	4
Sometimes	3
Not very often	2
Never	1

1. How often would you say you like the nursing atmosphere in the Unit while at work? (   )

2. How often do you find it stressful working in the ICU? (   )

3. How often you encounter the occurrence of high noise level in the unit?(   )

4. Which of the above response would you choose regarding the adequacy of staff in the unit? (   )

5. How often do you communicate with the patients you look after? (   )

6. How often do you communicate with paralysed or sedated patients? (   )

7. How often do you use touch as a means of communication with patients? (   )

8. How often do you introduce yourself to the patient? (   )

9. How often do you inform the patient each time you attend to him/her? (   )

10. How often do you call the patient by name each time you communicate with him/her?(   )

11. How often do you engage in small talk like, the day, time and weather to the patient whenever you attend to them? (   )

12. How often do you orientate patients to the surrounding if they are conscious? (   )

13. How often do you conduct a pre ICU visit for patients in the ward? (   )

Part C

For the following questions, circle the number for the best response to the statement.

14. Do you believe unconscious patients are aware of their environment?

Strongly believe	1	2	3	4	5	strongly disbelieve

15. Communication with an unconscious and/or sedated patient is important.

Strongly believe	1	2	3	4	5	strongly disbelieve

16. How do you rate your confidence in communicating with unconscious and/or sedated patients?

Very confident	1	2	3	4	5	not confident

17. How do you rate your confidence communicating with the patient's relatives?

Very confident	1	2	3	4	5	not confident

18. How conducive do you feel is the environment in the unit for communication with patients and relatives?

Very conducive	1	2	3	4	5	not conducive

19. Do you think the knowledge you have on communication is adequate for your daily encounters with ICU patients?

Adequate	1	2	3	4	5	inadequate

END OF QUESTIONNAIRE.

APPENDIX 6

Post-education questionnaires on communication (Phase Three)

A) Personal Details

1. Designation

	HKL	Klg
Staff nurse		
Nursing sister		
Medical assistant		

2. Ethnic group. (Please tick)

a) Chinese		
b) Malay		
c) Indian		
d) Others (specify)		

3. Age group (please tick)

30 years or below		
31-35 years		
36-40 years		
41-45 years		
46-50 years		
51-55 years		
56 years &above		

4 Length of service in ICU.(Please tick)

Below 1 year		
1- 5 years		
6-10 years		
11-15 years		
16-20 years		
Above 21 years		

Part B

For the following questions, circle the number for the best response to the statement.

1. Do you talk to your patient each time you attend to him/her even in an unconscious state?

Never	1	2	3	4	5 Always

2. Do you explain the procedure to the patient even if she / he is unconscious?

Never	1	2	3	4	5 Always

3. How do you rate your confidence in communicating with unconscious or sedated patients?

Not confident	1	2	3	4	5 Very confident

4. How do you rate your confidence communicating with the relatives?

Not confident	1	2	3	4	5 Very confident

5. Information to patient should be limited to explaining the type of procedure only.

Do not agree	1	2	3	4	5 Fully agree

6. Repeatedly informing sedated patients of procedure to be performed wastes nurses time.

Do not agree	1	2	3	4	5 Fully agree

7. Would you consider your knowledge on patient's information adequate to be able to explain to relatives what they want to know?

Not adequate	1	2	3	4	5 Adequate

8. Given a situation where you had to deal with family members who frequently asks questions, would you be able to accommodate their queries confidently?

Not confident	1	2	3	4	5 Very confident

9. Relatives of sedated patients should be encouraged to talk to the patient

Do not agree	1	2	3	4	5 Fully agree

10. Nurses should explain the functions of machines used on patients to the relatives to allay fear

Do not agree	1	2	3	4	5 Fully agree

11. Relatives who do not ask questions should be left alone.

Do not agree	1	2	3	4	5 Fully agree

12. How do you rate the recent lesson on communication?

Not effective	1	2	3	4	5 Very effective

13. ICU nurses need continuing education in communication and interpersonal skills.

| Do not agree | 1 | 2 | 3 | 4 | 5 | Fully agree |

14. I think I am able to advise my colleague to tone their voice down when talking to help reduce noise in the ICU.

| Do not agree | 1 | 2 | 3 | 4 | 5 | Fully agree |

15. The suggestions proposed in the communication education can be implemented.

| Do not agree | 1 | 2 | 3 | 4 | 5 | Fully agree |

END OF QUESTIONNAIRE.

APPENDIX 7

Observation chart of nurses and ICU milieu.

Date: Shift/ Hours:

time									
patient code									
nurse code									
call pt. by name									
inform pt. of impending procedures.									
eye contact									
touch									
small talk									
Physical care/procedures									
use comm. Aid									
smile									
no comm. when at bedside									
No.of nursing procedures.									
No of monitoring device in use									
Medication - sedation, muscle relaxant.									
Lights off (LO), on Lights (OL)									
Measurement of noise levelng									
Level of consciousness									
total patients in unit									
Total no of nurses on duty									

Key

U – unconscious.
SC – semi conscious
C - conscious

I – Indian.
C – Chinese
M - Malay

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Observation of nurse and ICU milieu

Observation of nurses.

Observe a nurse interacting with her patient/patients for 2 hours. Involves 3 different shifts therefore 2-3 nurses will be observed per shift. The number of patients will depend on the nurse's assignment.

The observation includes the communication opportunities arising between the nurses and patients. Communication opportunities include gestures made by patient, during doctor's rounds, nursing procedures to patient or nurses attending to patient for monitoring care. The number of opportunities will be counted and the record of gestures made by nurses to patient will be noted as a proportion to the opportunities.

A code will be given to each of the following gestures made by the nurse.

A   -call pt by name

B   -inform patient of impending procedures

C   - make eye contact to patient

D   - communicate with use of touch

E   - small talk to patient eg about time of day

F   - physical care

G   - use communication aid

H   - no communication at all when at patient's bedside.

Observation on the ICU environment will also be noted, with emphasis on the traffic movement, sound from equipment in use, lighting of the ICU and activities of nurses and support staff.

The noise levels will be measured at peak time between 0700- 0900 hours (when a lot of activities occur) and during off peak after 1100-1300 hours. The noise indicator will be placed between the patient's bed and the passageway.

Selected patient profiling will be taken from their case notes.

Patient particulars

Ethnic group of patient:

Date and time of admission:

Age:

Diagnosis:

Sedation prescribed :

Nurses particulars

Ethnic group of nurse:

APPENDIX 8

Patient interview

Patient's questionnaire.

Patient's name:

Age:

Gender:

Ethnic group:

Religion:

Diagnosis:

Date admission to ICU:

Date discharged from ICU:

Date and time interviewed:

Intubated:

Sedated/ paralysed:

Questions

- Tell me if you remember any experiences of your ICU stay?

- Can you describe any difficulty communicating with the staff while in the ICU?

- Tell me if you remember anything about the layout of the ICU, noise, equipment that may have affected your communication with the staff and family/friends?

- Tell me what you can remember of any family members/friends who frequently communicated with you?

- Tell me if you can remember the staff who attended to you while in the ICU?

- Tell me what recommendations you would propose to improve communication between staff and patient?

APPENDIX 9

Relative's interview

Ethnic group :

Gender :

Age :

Relationship to the patient :

Frequency of visits :

Occupation :

Date and time interview:

No. of days after patient's admission :

Questions :

- How would you describe your communication with the staff?
- Do you feel the staff give you adequate information about the patient's condition, the procedures performed and the equipment in use?
- Do you have the opportunity to communicate with your relative/ friend?
- Do you find the surroundings of the patient, such as the layout of the ICU, noise, equipment in use affect your ability to communicate with the staff and patient?
- Were you able to visit the patient in the unit often?
- Do you have any comments about the visiting hours of this unit?
- Is there anything else relating to communication that you would like to discuss with me?
- Do you have any recommendations to help improve communication with the staff?

APPENDIX 10

Focus group interview with nurses

Unit :

Nurse Code:

Number of participants :

Ethnic group:

Length of service in ICU :

....

1. How do you feel about your communication with patients and relatives?

2. Are there any types of patients you find especially difficult to communicate with?

3. Tell me about the use of any communication aids to assist with patient communication.

4. Is there anything about the behaviour of nurses you wish to describe ?

5. Are you satisfied with your nurse-patient communication skills?

6. Tell me about any times you when have felt uncomfortable communicating with the patient's family or friends?

7. How do you think the physical environment, such as the ICU layout, noise, equipment, etc affect nurse-patient communication?

APPENDIX 11

Information for patient

Project Title : "Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units"

Dear Sir./Madam

My name is Faridah Binti Hashim and I am a PhD student in Nursing from Edith Cowan University, Perth, Australia. I am currently studying the barriers to effective nurse-client communication in an Intensive Care Unit.

My project title is "**Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units**" The purpose of this study is to find out communication barriers between nurse and client in the ICU and suggests ways to improve communication. The findings may be of benefit for patient satisfaction and will help improve nurse-patient communication in an ICU setting.

I will need to interview you and find out your views on communication with nurses while you were in the ICU. There is a possibility that during the interview you may find it stressful or may not be able to proceed. If this situation occurs, I will stop the interview and seek assistance from the attending doctor and if you require the assistance of a social worker, this will be arranged.

Should you wish to withdraw from the interview, you may do so and it will not affect the care given to you.

This interview session will be audio-taped and will be kept in a safe place to ensure confidentiality. It will be erased once the interview is transcribed.

Please be assured that your identity and your responses will be kept confidential and the materials obtained will be used solely for the submission of my work on this project. I would appreciate your honest opinion in answering the questions asked.

Should you find you have any questions concerning the project, please contact my principal supervisor at the following address.

Associate Prof Gavin Leslie

Coordinator

Postgraduate Clinical Nursing

Edith Cowan University

Pearson Street, Churchlands

Western Australia, 6018.

In case of any queries or concerns about this study, please contact

Kim Gifkins

Research Ethics officer

Building 1.333

University of Edith Cowan

Joondalup Campus

Joondalup

Western Australia, 6027

My contact address is

Faridah Hashim

Faculty of Medicine and Health Science

University Technology MARA

Jalan Othman

Petaling Jaya 46000

SELANGOR

Thank you for your kind attention and in anticipation of your help.

Yours sincerely

Faridah Hashim

APPENDIX 12

Patient consent form

Project Title "Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units"

I, (please print) …………………… …………………………………….., have read the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this activity, realising I may withdraw at any time and that it will not affect the care given to me..

I agree that the research data gathered for this study may be published provided I am not identifiable.

I understand that I will be interviewed and the interview will be recorded and the recording will be erased once the interview has been transcribed.

Signature of patient

……………………………………………….   Date ………

Signature of researcher

…………………………………………..   Date

www.ma

APPENDIX 13

Information for relatives

Project Title: **"Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units"**

Dear Sir./Madam

My name is Faridah Binti Hashim and I am a PhD student in Nursing from Edith Cowan University, Perth, Australia. I am currently studying the barriers to effective nurse-client communication in an Intensive Care Unit.

My project title is **"Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units"** The purpose of this study is to find out communication barriers between nurse and client in the ICU and suggests ways to improve communication. The findings may be of benefit for patient satisfaction and will help improve nurse-patient communication in an ICU setting.

The procedure involves an interview session in which I will ask you questions pertaining to communication with nurses in the ICU. This session will take place within the ICU so that you will be near your relative and the time taken is about 1 hour. This interview session will be audio-taped and will be kept in a safe place to ensure confidentiality. It will be erased once the interview is transcribed.

Should you find that you may not be able to continue with the interview session, you are allowed to withdraw at any time.

Please be assured that your identity and your responses will be kept confidential and the materials obtained will be used solely for the submission of my work on this project. I would appreciate your honest opinion in answering the questions asked.

Should you find you have any questions concerning the project, please contact my principal supervisor at the following address.

Associate Prof Gavin Leslie

Coordinator

Postgraduate Clinical Nursing

Edith Cowan University

Pearson Street, Churchlands

Western Australia, 6018.

In case of any queries or concerns about this study, please contact

Kim Gifkins

Research Ethics officer

Building 1.333

University of Edith Cowan

Joondalup Campus

Joondalup

Western Australia, 6027

My contact address is

Faridah Hashim

Faculty of Medicine and Health Science

University Technology MARA

Jalan Othman

Petaling Jaya 46000

SELANGOR

Thank you for your kind cooperation and in anticipation of your help.

Yours sincerely

Faridah Hashim

APPENDIX 14

Consent form for relatives

Project Title: **"Multidimensional approach to Nurse Client Communication inTwo Malaysian Intensive Care Units"**

I, (please print) …………… …………………………………………………, a family member of patient ……………………………………………………..., have read the information given above and any questions ' have asked have been answered to my satisfaction.

I agree to participate in this activity, realizing I may withdraw at any time..

I agree that the research data gathered for this study may be published provided I am not identifiable.

I understand that I will be interviewed and the interview will be recorded and the recording will be erased once the interview is transcribed.

Signature of relative

…………………………… Date …………………………….

Signature of researcher

…………………………….. Date…………………………

APPENDIX 15

Nurses' semi-structured questions – Phase Three

Focus group interview with nurses

Unit :

Number of participants :

Ethnic group:

....

1. Tell me what are your feelings on your communication to patients after the education session.

2. Did you feel there is a difference in the way you communicate with the patients and relatives. Tell me how.

3. Were the strategies discussed of any assistance for you to start a better communication session with your clients?

4. Are you satisfied with your nurse-patient communication skills now?

5. Tell me what are ways to ensure nurses communicate and set it as a top priority along with physical care.

6. Would you like to discuss your role in promoting communication with colleagues?

APPENDIX 16

Lesson Plan – Education Program

Participants : registered nurses from ICU of 2 hospitals.
Mode of teaching: didactic and interactive sessions. Self directed learning.
No of participants: 5-10
Time: 4 hours (2 hours didactic, 2 hours reading)

Objectives.
At the end of the 4 hour session, the students should be able to
- Demonstrate understanding of the communication process
- Define interpersonal skills.
- Describe listening skills.
- Describe factors that affect communication.
- Describe the factors contributing to good communication
- Appreciate the need for good communication with relatives in ICU
- Demonstrate ability to communicate with patients and relatives in ICU setting.

Introduction.
The findings from the study have listed the following as the barriers identified:
Communication.
Nurses : during focus group interview nurses identified lack of communication skills especially in dealing with relatives of ICU patients, patients.
- Difficulty also faced in dealing with VIP relatives or medical orientated relatives / educated relatives.
- Relatives who constantly asked of patient's conditions.
- Communicating with relatives who insisted on admission after visiting hours.
- Communicating with patients - one way communication.
- During observation, noted that nurses hardly speak to patients. If ever any communication takes place, to inform procedures.
- Nurses ask for ongoing communication education.

Relatives.
- Nurses always appear busy for communication
- Explanation given not satisfactory- not in detail. Nurses reluctant to give detailed explanation eg lab result or condition.
- No voluntary explanation given, approach relatives, and be friendly.
- Too many referrals to doctor, even when simple questions are asked. Feel nurses not confident, even though the expectation on ICU nurses high. Doctors difficult to find.
- Visiting hours too strict.
- Nurses need to be more caring and understand needs of families.
- Religious practice - understand ethnic groups' beliefs.

Patients
- Wantsnurses to continuously inform them of condition, time and place. Communicate all the time.
- ICU noisy – nurses should speak softer. Reduce noise from machines.
- Lights – turn off at night. Sometimes glaring.
- Nurses should be more caring especially to conscious patient. Provide method to call nurse –bell, use communication aids.

Environment.
Noise – from the telephone and staff conversation.
Nurses were not around during visiting hours.

Strategies for improving communication.
(Asks nurses to contribute ideas – reinforce correct responses and discuss ideas not mentioned)
Guidelines for effective listening.

1. Remember that listening is not just about receiving information -how you listen also sends a message back to the message sender.
2. Stop talking. You can't listen if you are talking.
3. Show a talker that you want to listen. Paraphrase what has been said to show you understand.
4. Remove distractions.
5. Avoid pre-judging what the person feels or thinks. Listen first, then make judgements later.
6. Try to see the other person's point of view.
7. Listen for total meaning. This includes both the content of the words and the feeling or attitude underlying the words.
8. Attend to both verbal and non verbal cues.
9. Go easy on argument and criticism, which put people on the defensive and may make them 'clam up' or become angry.
10. Before each person leaves confirm what has been said.

Factors affecting communication.
1 lack of self-awareness
2 lack of systematic interpersonal skills training
3 lack of a conceptual framework
4 lack of clarity of purpose.

Lack of self-awareness.
As mentioned earlier nurses need to have self-awareness to enable them to practice holistic nursing. Among the personal factors of self-awareness that can affect communication are attitudes, values, beliefs, feelings and behaviours. If nurses are aware of these main elements, communication can be effective.

Stien Parbury (1993) states that :-
Nurses need to develop self-awareness whenever they engage in interactions and relationships with patients, because the primary tool they are using in these circumstances is themselves. Without self-awareness the nurses run the risk of imposing their values and views onto patients. Through self-awareness, nurses remain in touch with what they are doing and how this is affecting patients for whom they care.

In human communication not all the signals and messages are sent intentionally or consciously. There is a possible discrepancy between what the individual perceives during communication and other people's understanding. Nurses should be aware of this possible discrepancy which may contribute to problems in communication. By maximizing the self-awareness, one can enhance effective communication.

Lack of systematic interpersonal skills training.
Communication consists of a set of skills. Systematic interpersonal skills training offers to develop competent communicators if the training is structured correctly. There is increasing evidence that nurses do not practice effective communication (Ashworth,1980; MacLeod Clark, 1985; Hafsteindottir, 1996; Wojnicki Johansson, 2001). Therefore continuous education in interpersonal skills, which is structured and based on research findings should be implemented.

Interpersonal skills training needs to go .hrough a process. One that is described by Egan (1985) involves the following:-
1. identification of individual non verbal and verbal micro skills appropriate to the context of the communication. This stage results in clarity of understanding of *what the skills are* in terms of definitions, behaviours, aims and application. It is achieved through reading, lectures and discussions.
2. Knowledge of how to use the skills. This is achieved by observing demonstrations of others using the skills. This may take the form of live demonstration, video or audio tapes. This stage facilitates progression from conceptual understanding to behavioural understanding.
3. Practice of the skills. The opportunity to try using the skills with peers in structured training sessions either using role play or preferably 'live' issues.
4. Evaluation of the practice through focused feedback. This enables reflection on one's own performance and also constructive feedback from peers and teachers. The intention is to confirm

what is done well and what is not. A common structure is for a peer to observe the interaction and notice specifically what takes place.
5. Evaluation of the training process. Periodic evaluation of one's overall progress and the experience of the training process is useful in consolidating different experiences.
6. Implementation in the 'real' world. Putting the skills together within a nursing context is the final stage. Moving from the formalized learning environment to the practice setting and gradually integrating what has been learned so that it becomes second nature. This process is made easier by effective supervision, introspective reflection and feedback mechanisms. A common experience of this learning process is to feel de-skilled at different stages. This often discouraged nurses as they feel a temporary sense of incompetence.

Lack of conceptual framework.
Most nurses practice interpersonal skills and communication without the use of any framework It is done on an ad hoc based on past experience or from observation. It is important for nurses to conceptualise their communication practice so that it is conducted in a coherent and strategic manner. A framework provides the language and organization to make sense of interactions. There are very few theories that focus solely on communication. But looking at some of the nursing theories, there are always descriptions of communication. Nurses should select a framework that best suits their environment.

Among the nursing theorists who have reflected on communication in their theory is Hildegard Peplau (1952) a psychiatric nurse and one of the first nurse theorists. She believed that a nurse who related with a client in a healthy way could provide a corrective interpersonal experience for the client. The experience of a positive relationship with the nurse would allow for healthier relationships with others. She encouraged nurses to promote trust in their relationships by relating to their clients in an authentic manner by sharing feelings and thoughts appropriately.

She also noted that closeness in a therapeutic relationship builds trust, increases the client's self-esteem, and leads to new personal growth for the client.
(Have you ever adopted a specific theoretical framework for nursing?)

Lack of clarity or purpose.
The effective communicator has a high success rate of making appropriate choices for the situations that are encountered because he/she is clear about the aims or purpose of each interactions. This enables the effective communicator to discriminate between alternative choices, selecting what suits a specific situation. The needs of the client determines the purpose of the interactions. This process requires empathy and sensitivity.
A nurse should be able to select an appropriate communication for a situation and be clear about the intention and purpose.

Barriers to communication.
1. cultural differences / language
2. semantics
3. conflicting assumptions
4. emotion.
5. health status
6. gender
7. knowledge differences
8. developmental level
(Give scenario of each of the above. Ask participants to think of examples based on their past experience and to describe how they manage it.)

To overcome the barriers above it is important to understand how each can affect communication and attempts should be made to reduce them.

Communication with relatives in the ICU.
When a patient is admitted to the ICU, a nurse has an additional consideration to her reswponsibilities – the family members. Nurses deal with family members more than patients in terms of communication in the ICU.

Effects on family.

Studies show that the level of family stress is high given the patient's critical state of health. Some families are reported to have symptoms of depression, loss of weight and appetite and diminished level of concentration and insomnia (Stover Leske,1985).

How families deal with stress in ICU
1. constantly stay at the patient's bedside or be near the patient always.
2. frequently repeat the same questions to nurses or doctors
3. look for support to nurses and others
4.

(explain each with examples. Ask nurses if they have experienced what is mentioned above)

Strategies for communicating in the ICU (from findings of study)
1. Relatives
   - Nurses should know the close relatives or significant others of patients under their care.
   - Voluntarily approach relatives during visiting hours and inform them of the patient's conditions or any changes.
   - Introduce themselves to the relatives so they know who is caring for the patient.
   - Be friendly to relatives and greet them.
   - Know the patient's condition and regime of treatment, so as not to keep referring the relatives to doctors. The doctors are not always available.
   - Offer help to relatives, and introduce the doctors whom they should see.
   - Offer relatives participation in care of patient. Allow them to include traditional medicine if it does not interfere with scientific medicine. Nurses must know the common practices of religious beliefs of different ethnic group.
   - Be empathetic to relatives. Allow them to perform religious rites that do not interfere with other scientific care.
   - Inform relatives to avoid talking negatively within the patient's hearing range.
   - Allow family members to verbalise their fear and anxiety.
   - Explain briefly and in a language understood by family members, the equipment around the patient.
   - Encourage family members to talk and touch the patient.
   - Provide a basic description of what is to happen in the next 24 hours.
   - Give assistance if they need pastoral care.
   - Plan a time to see the doctor. Make arrangements to see a doctor.
   - Nurses must know what can be explained to relatives.
   - Continuously communicate to patients. Keep them informed all the time. Even with patients who have been in ICU more than once.
   - Nurses who are not confident to deal with VIP relatives/ educated and medical oriented relatives must seek assistance from senior nurses/doctors.

2. Patients
   - Always inform the patient of any procedure to be done. Explain on a regular basis. Assume they can hear.
   - Explain the benefits and any discomfort associated with the procedures.
   - Repeat information frequently, as in a sedated situation, memories are dim and short term.
   - Inform method to call nurse for conscious patient and be at the bedside whenever possible.
   - Never say things within hearing range which you wouldn't want the patient to hear.
   - Conscious patients like to communicate even if they cannot communicate back. Make efforts to communicate with them, give them moral support and encouragement.
   - Keep patients informed of the day, time and any event.
   - Make patients feel they are part of the team by acknowledging and calling them whenever there is eye contact with the patient.

3. Environment.
   - Remove unnecessary equipment from bed area.
   - Nurses to wear rubber shoes to prevent noise.
   - Attend to alarm signals stat, or use light indicators.
   - Keep voices down when talking. Remind each other. There is a tendency to shout from one end of unit to another.
   - Place clocks strategically in the unit for patients to see.
   - Try to minimize noise when pushing heavy equipment like portable x-ray machines.

Having said all the above, what is important is nurses should always seek to improve their communication skills through reading of research findings and apply the findings to their local needs.
Learning to communicate is a continuous process.

After this lesson, there will be an evaluation of the lesson. You will be observed on your care of the patient with regards to communication and later a focus group will be conducted.

I do hope to get your cooperation . thank you.

References:

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4. Hellrigel, Don; Jackson, Susan; Slocum, John. W. (1999). *Management*. 8th edition. South-Western College Publishing.
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APPENDIX 17

Approval From Ethics Committee

Resubmit Mon 3/11/03.

EC
EDITH COWAN

CHURCHLANDS CAMPUS

Pearson Street, Churchlands
Western Australia 6018
Telephone (08) 9273 8333
Facsimile (08) 9387 7685

28 August 2003

Faridah HASHIM
No 34 JLN Sri Siantan 36
Taman Sri Andalas
Klang
SELANGOR 41200
MALAYSIA

Student No # 2016280

Dear Faridah,

I am pleased to advise that your research proposal has been reviewed and recommended for approval. The reviewers of your proposal have indicated, however, that there are several matters that require further consideration. It is imperative that you discuss these matters with your supervisor and ensure that any changes that are necessary are made before you develop your thesis further. In consultation with your supervisor you should discuss the reviewers' reports and incorporate their recommendations into your proposal as appropriate.

Please note that this letter does not sanction you to commence data collection.

Would you now please submit the following documentation to the Office of Research and Higher Degrees in the Faculty before Friday 26th September 2003.

- *PhD Research Proposal Checklist* – this form is available from the following web address: http://www.chs.ecu.edu.au/org/rhd/documents/Checklist_PhD.rtf
- a memo from your supervisor indicating that the changes required by the reviewers have been incorporated into the revised proposal; and
- a copy of the revised research proposal.

The *Faculty Research and Higher Degrees Committee* will consider the information and then forward it, along with their recommendation, to the Graduate School where the *Research Students Scholarship Committee* will consider, along with your approved Ethics Application or Ethics Declaration.

Please note that NO data collection can commence until you have received written notification from the Graduate School that your research proposal has been approved and that either your Ethics Application has been approved, or an Ethics Declaration has been accepted.

Please contact Rebecca Treloar Cook, Administrative Officer for the Office for Research and Higher Degrees on 9273 8883 should you have any queries.

Prof. Linda Kristjanson
Assoc. Dean Research & Higher Degrees
Faculty of Computing, Health & Science
Phone 08 9273 8817
Fax 08 9273 8882
Email l.krist@ecu.edu.au
Encl. Research Proposal
Reviewer's comments
cc Supervisor – David Roberts
Postgraduate Coordinator – Sue Allwell
Student File

30th October, 2003

Ms Faridah Hashim
No.34 JLN Sri Siantan 35
Taman Sri Andalas,
Klang
SELANGOR WA 41200
MALAYSIA

Dear Ms Hashim,

It is with pleasure that I write on behalf of the Research Students and Scholarships Committee who have approved your PhD research proposal – *Improving Client Communication in an Intensive Care Unit through the Development of a Nursing Education Program.*

I also wish to confirm that your proposal complies with the provisions contained in the University's policy for the conduct of ethical research, and your application for ethics clearance has been approved. Your ethics approval number is 03-121 and period of approval is
24 October 2003 to 31 December 2004. *A copy of the Conditions of Approval is attached.*

You may now commence your data collection.

Approval is given for your supervisory team to consist of:

Principal Supervisor	A/Prof Gavin Leslie
Associate Supervisor	Dr David Roberts

The examination requirements on completion are laid down in *Part VI of The University (Admissions, Enrolment and Academic progress) Rules for Courses Requiring the Submission of Theses* available at: http://www.ecu.edu.au/GPPS/legislation/rules/aprcont.php.

Additional information and documentation relating to the examination process can be found at the graduate school web site: http://www.ecu.edu.au/GraduateSchool/gsmain.html.

Please note the Research Students and Scholarship Committee has resolved to restrict doctoral theses to a maximum of 100,000 words with a provision that under special circumstances a candidate may seek approval from the Faculty Research and Higher Degrees Committee for an extension to the word length. [RSSC 88/24]

Finally, could I take this opportunity to offer you our best wishes for your research and the development of your thesis.

Sincerely,

Karen Leckie
Manager
Graduate School

cc: A/Prof Gavin Leslie
        Dr David Roberts
        Rebecca Treloar-Cook (#2016258)

APPENDIX 18

Approval letters from hospitals

JABATAN KESIHATAN NEGERI SELANGOR
TINGKAT 10 & 11, WISMA MASALAM,
LOT 1, JALAN TENGKU AMPUAN ZABEDAH C 9/C,
40100 SHAH ALAM
SELANGOR DARUL EHSAN

☎ 55188801, 55188802, 55188803
Fax 55188804, 55188805, 55188806

( )dlm JKNS.100-18/1/7
Jun 2001

Tuan/Puan,

**Memohon Kebenaran Menjalankan Kajian
Di Unit Rawatan Rapi HTAR Klang**

Adalah dengan hormatnya merujuk kepada surat tuan/puan bertarikh 22/5/2001 mengenai perkara di atas.

2.   Sukacita dimaklumkan bahawa, Jabatan ini tiada halangan dan meluluskan permohonan tuan/puan untuk menjalankan kajian di Hospital Tengku Ampuan Rahimah, Klang mulai Oktober 2001 hingga April 2002.

3.   Tuan/puan adalah dikehendaki mematuhi arahan dan peraturan hospital seperti yang dikepilkan bersama seperti di **Lampiran A**.

4.   Tuan/puan juga diminta melaporkan diri kepada Pengarah Hospital berkenaan pada tarikh tersebut bersama surat asal dari Institut/Universiti tuan/puan.

Sekian, terima kasih.

' BERKHIDMAT UNTUK NEGARA '

Saya yang menurut perintah,

(**DR. EILEEN SHANTHINI NADARAJAH**)
Timbalan Pengarah Kesihatan (Perubatan)
b.p. Pengarah Kesihatan
Jabatan Kesihatan Negeri Selangor.

s.k.   Pengarah Hospital TAR Klang
       (Disertakan sesalinan surat daripada pemohon)

JABATAN KESIHATAN NEGERI SELANGOR
TINGKAT 10 & 11, WISMA MASALAM,
LOT 1, JALAN TENGKU AMPUAN ZABEDAH C 9/C,
40100 SHAH ALAM
SELANGOR DARUL EHSAN

☎ 55186001, 55186002, 55186003
Fax 55186004, 55186005, 55186006

Ruj. \dlm JKNS 100-18/1/7

Jun 2001

Faridah Hashim
Unuveersit' Teknologi MARA
Program Teknologi Kesihatan
Fakulti Sains Gunaan
Jalan Othman
46000 PETALING JAYA

Tuan/Puan,

**Memohon Kebenaran Menjalankan Kajian
Di Unit Rawatan Rapi HTAR Klang**

Adalah dengan hormatnya merujuk kepada surat tuan/puan bertarikh 22/5/2001 mengenai perkara di atas.

2.   Sukacita dimaklumkan bahawa, Jabatan ini tiada halangan dan meluluskan permohonan tuan/puan untuk menjalankan kajian di Hospital Tengku Ampuan Rahimah, Klang mulai Oktober 2001 hingga April 2002.

3.   Tuan/puan adalah dikehendaki mematuhi arahan dan peraturan hospital seperti yang dikepilkan bersama seperti di **Lampiran A**.

4.   Tuan/puan juga diminta melaporkan diri kepada Pengarah Hospital berkenaan pada tarikh tersebut bersama surat asal dari Institut/Universiti tuan/puan.

Sekian, terima kasih.

' **BERKHIDMAT UNTUK NEGARA** '

Saya yang menurut perintah,

█████████

(DR. EILEEN SHANTHINI NADARAJAH)
Timbalan Pengarah Kesihatan (Perubatan)
b.p. Pengarah Kesihatan
Jabatan Kesihatan Negeri Selangor.

s.k.   Pengarah Hospital TAR Klang
         (Disertakan sesalinan surat daripada pemohon)

*Maklum Hamdiah
....
CP MARY SE........MIN
....
HOSP........
KLANG........*

N B *Permission
granted by Hospital
Klang through State
Health Department*

PEJABAT PENGARAH
HOSPITAL KUALA LUMPUR
JALAN PAHANG
50586 KUALA LUMPUR

Telefon 03-26155555
No Fax 03-26989845

Ruj. Kami : HKL/98/AM. 882

Tarikh :   15 Oct. 2003

Puan Faridah Hashim
Nursing Department
Edithcowan University
Perth Australia.
Dear Puan Faridah,

A Survey Title: Improving Client Communication in an intensive
Care Unit Through the development of a nursing education program

This is to inform you that the management of Kuala Lumpur Hospital has approved your request for the survey.

Thank you,

(DR. NG THIEW KIM)
Principal Assistant Director
Kuala Lumpur Hospital

APPENDIX 19
Consent form for transcribers.

Faculty of Communications, Health and Science

It is a requirement of the Edith Cowan University, the Tengku Ampuan Rahimah Hospital and the Medical Centre Hospital, University Malaya, Ethics Comittees that I obtain a declaration of confidentiality from people having access to the tape-recorded interviews. If you are agreeable, can you please sign the declaration below :

_____

DECLARATION OF CONFIDENTIALITY

I declare that I will keep the tapes and any transcripts in a secure location and that no other person will be permitted to access the taped or transcribed information

Furthermore, I will declare I will not reveal or discuss the contents of the tapes with anybody other than the researcher.

Signed:_____

Please print your name:_____

Date:_____ _____

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