THE RELATIONSHIP OF PATIENT PARTICIPATION IN MOBILIZATION ON LENGTH OF HOSPITAL STAY IN HOSPITALIZED ADULT PATIENTS WITH FRACTURED TIBIA AND FIBULA AT TWO CENTRAL HOSPITALS IN HARARE ZIMBABWE

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THE RELATIONSHIP OF PATIENT PARTICIPATION IN MOBILIZATION ON LENGTH OF HOSPITAL STAY IN HOSPITALIZED ADULT PATIENTS WITH FRACTURED TIBIA AND FIBULA AT TWO CENTRAL HOSPITALS IN HARARE ZIMBABWE.

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ABSTRACT

Length of hospital stay is an area of concern in medical-surgical nursing. Length of hospital stay determines the financial cost incurred by the patient and the potential complications the patient may develop (Marchette & Holloman 1986). The World Development Report, (1993) stated that, Government hospitals in developing countries, including Zimbabwe, keep patients longer than is necessary.

The purpose of the study was to describe patient participation in mobilization of hospitalized adult patients, identify the length of hospital stay and examine the relationship of patient participation in mobilization on length of hospital stay. A descriptive correlational design using a convenience sampling method was used to select 50 patients comprising 37 males and 13 females with fractured tibia and fibula. Roy’s Adaptation Model provided the foundation for the study.

The study sites were two referral Central Hospitals in Zimbabwe. The instruments used for collecting data were structured interview questionnaires, developed by the investigator for measuring demographic characteristics, patient participation in mobilization and length of hospital stay. The average length of hospital stay was 16 days. The total score of patient participation was 147. The majority of the patients, constituting 58% scored below the mean score of 73.5 whilst 42% scored above the mean score. The Pearson correlation (r) coefficient identified that there was no relationship of patient participation in mobilization on length of hospital stay, ($r = .0028$) ($p > .05$). Although the results were insignificant, there is a need for medical-surgical nurses to provide
adequate information to the patients so as to improve their perception on participation in mobilization. This study could be used as a pilot project for conducting further research studies with larger sample sizes employing the concept of patient participation especially in reducing length of hospital stay.
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CHAPTER I

BACKGROUND AND ORGANIZING FRAMEWORK

Problem Statement

Length of hospital stay is an area of primary concern in Medical-Surgical Nursing. Length of hospital stay determines the financial cost incurred by the patient and the potential complications the patient may develop. Engleman (1996), recognized the problem of length of hospital stay in surgical patients and introduced a fast track protocol that was associated with aggressive ambulation of patients, as a mechanism to reduce length of stay with concomitant reduction in hospital cost. Marchette and Holloman (1986), state that the length of hospital stay affects cost of hospitalization, as longer stays invariably invoke greater costs.

Length of hospital stay is defined as the period the patient is hospitalized (Marchette & Holloman, 1986). The day of admission and the day of discharge were found to be related to length of hospital stay in medical patients (Lave & Leinhardt, 1976) although no statistical evidence was reported. Marchette and Holloman's (1986) findings demonstrated the relationship between nurses' discharge planning and length of stay. For every area of discharge planning, which included nutrition, medication activity, psychosocial, and physical activities, there was a decrease of 0.8 days of hospitalization. For every day that their discharge planning was postponed, there was an increase of 0.8 days. It was recommended that efforts could be made to compare patients who are similar with respect to diagnosis, age or other variables that could relate to length of hospital stay.

In this study the length of hospital stay extends from the day of admission to
the day of discharge. At one of the Central hospitals in Zimbabwe, the average
length of hospital stay of a total admission of 114 patients with fractured shaft of
tibia and fibula is 21 days (Parirenyatwa Hospital Statistics, 1997). Twenty one days
of hospitalization is costly to the patient and therefore crucial for the patient’s
length of hospital stay to be limited to that which is only surgically necessary.

In Zimbabwe a patient who earns four hundred dollars and above ($400.00)
per month is expected to pay hospital fees. The cost incurred in attending to a
patient with a fractured tibia and fibula is one thousand two hundred and eighteen
dollars ($1,218.00) on the day of operation and three hundred and seventy-five
dollars ($375.00) per day for general ward fees, as instituted by the Ministry of
would benefit the patient in terms of cost incurred and reduce exposure to surgical
complications and infections.

Internationally, the need for addressing the length of hospital stay has
evoked innovative programmes and investigations, as health care systems are
shifting towards home based care (Kim et al, 1993) which is cost containing.
Farnworth, Kenny and Shiell (1994), reviewed the costs and effects of early
discharge in the management of a fractured hip. A programme was put in place
where comparison of cost of management and of value of resources freed by
reductions in length of hospital stay was undertaken. The need to improve post
operative mobility constituted an important element of the programme. The result
was that a reduction in cost was achieved without impairing the health outcome.
Lengths of hospital stay which are extended could be encouraged by exploitative
hospital policies (McDonald 1994) therefore, medical-surgical nurses need to be
aware of how hospital politics affect patient outcomes. The World Development Report, (1993) states that in every developing country, including Zimbabwe, decisive steps are needed to correct inefficiency of clinical health programmes especially of Government services where hospitals keep patients longer than necessary. This is the challenge medical-surgical nurses in Zimbabwe are confronted with, hence the need to address length of hospital stay so as to be cost-effective and efficient. In the United States of America, the diagnosis related groups reimbursement system, pays a fixed amount based on the type of patient regardless of length of stay or cost. The hope was that, the diagnosis related groups would give hospitals an incentive to shorten lengths of stay and decrease costs (Finkler & Kovner, 1993).

Length of hospital stay, if extended may predispose patients to nosocomial infections. Vegas, Jodra and Gracia (1993) found that nosocomial infections in surgical wound infections such as fractured tibia and fibula prolonged the average hospital stay of the nosocomially infected patient by an average of 12.6 days and wound infection by 14.3 days as compared to the uninfected matched controls. These results suggest that infection control and maintenance of a clean environment could concomitantly reduce the risk of nosocomial infection thereby shortening the length of hospital stay for hospitalized adults with fractured tibia and fibula.

Prolonged length of hospital stay in adult patients with fractured tibia and fibula may disrupt the patient's psychosocial disposition. Henderson (1978), states that dependency and loss of social stimuli result in apathy, frustration and hopelessness. Ignatavicius (1991), also states that this psychosocial disequilibrium can affect the patient's coping mechanisms. When the patient's coping mechanism is
disrupted, a longer time is needed for readjusting, thereby exposing the patient to more complications and further prolonging length of hospital stay. Erickson and Swain's (1982) descriptive-correlational study on adaptive potential and length of hospital stay on medical-surgical patients, found that the patient in psychosocial equilibrium had the shortest recovery rate and shortest hospital stay with a mean of 9.4 days. This suggests that a holistic approach in caring for patients with fractured tibia and fibula provides impetus for patient participation which enables achievement of psychosocial equilibrium, thus shortening the length of hospital stay.

Length of hospital stay may also be prolonged as a result of the patient suffering from mismanaged pain and anxiety. Devine (1993) established that, post operative pain may be detrimental to recovery. A positive perception of pain, leading to early discharge from hospital could be facilitated by an educational intervention. Devine and Cook's (1993) study found that psychoeducational interventions reduced hospital stay by 1.25 days. This finding supports the belief that psychoeducational interventions may be cost effective with surgical patients of many kinds, including patients with fractured tibia and fibula because the length of hospital stay is reduced.

Length of hospital stay also impacts on hospital bed occupancy. In Zimbabwe, Central Hospital ward beds are always occupied because they serve as referral hospitals for the nation. As a result the central hospital full bed occupancy creates a high nurse-patient ratio. Makoni, (1994) made reference to orthopaedic wards where the nurse-patient ratio was 1:10 as compared to 1:3 a ratio adapted from the modified New Castle Formula for staffing (Newcastle in Barrett, Gessner & Phelps 1968) which is currently used by the Ministry of Health.
and Child Welfare, thereby creating potential for compromising the quality of care given. Perhaps compromised quality of care prolongs the length of hospital stay and if such care is coupled with early discharge may result in an increase in the readmission hospital rates for patients with fractured tibia and fibula.

It would appear that providing good quality care could possibly both reduce length of hospital stay and readmission rates. Harrison, Graff, and Brownell's (1996) retrospective descriptive study, to determine whether decreasing length of hospital stay was associated with increased readmission rates, indicated that improving the quality of nursing care given and hospital efficiency by shortening length of hospital stay did not appear to result in increased rates of readmission and added that research was needed to identify optimal lengths of stay and expected readmission rates.

Patient participation in mobilization (Henderson 1978) empowers the patient to achieve early recovery which may reduce length of hospital stay. Roper, Logan and Tierney (1987) describe mobilizing as one of the essential and highly valued human activities. The need to mobilize for other activities of living is apparent, in that all involve movement. A patient who suffers a fractured tibia and fibula faces challenges in mobilizing, as there is a change of environment and routine which incurs dependent and independent states and discomforts regarding the act of mobilizing (Roper, Logan & Tierney 1987). In such circumstances, the nurse who accepts and respects the patient as an individual capable of making decisions, will facilitate the acquisition of the skill of patient participation to address the activities of daily living which include mobilising and meeting psychosocial needs (Peplau in Cahill, 1996). In order to promote patient participation in mobilization, the
medical-surgical nurse uses the nursing process as a vehicle to provide care, capitalizing on its dependence upon the patient as an active participant (Aggleton & Chalmers 1986), which should provide the impetus for early mobilization and reduced length of hospital stay in adult patients with fractured tibia and fibula.

Cahill (1996) states that because of increased consumer knowledge, increased awareness of rights and the accelerating health-care costs, the concept of patient participation has become popular in nursing. Billey (1992) also states that the greater knowledge of health care issues and the development of bodies created to protect the interests of the consumer, all contribute to the patient playing an active role in the management of his care.

Patient participation in mobilization is enhanced by the patient's perception of participation, as outlined by (Cahill 1995) when she defined the attributes of the concept of patient participation. Accordingly, the patient has to relate to the medical-surgical nurse providing the care, be involved in his care management, and have knowledge regarding his diagnosis, exercises including: range-of-motion exercises of all joints; isometric muscle exercises; self care activities and information on possible complications. Patient participation in mobilization engages the patient in performing joint and muscle exercises and self-care activities of daily living (Smeltzer & Bare 1996) so as to achieve mobility. Participation in mobilization maintains muscle mass and strength thereby preventing muscle atrophy (Smeltzer & Bare 1996) a complication that would prolong length of hospital stay. Henderson (1979), highlighted the importance of mobilization in preventing deformity and malfunction of the patient during illness and included mobilization as one of the activities of daily living in the components of basic nursing care.
Patient participation in mobilization which promotes self-care activities in daily living could be limited by the conservative attitudes of health care providers and routines in post-operative care. Moiniche et al's (1994) study on post-operative analgesia following orthopaedic surgery, found that patients expressed dissatisfaction, with the nurses and doctors attitudes and the routinization of care. Perhaps, a holistic approach to care (Andrews and Roy, 1991) would provide the uniqueness and flexibility, adult patients with fractured tibia and fibula desire as they achieve mobility and consequently the reduction of the length of hospital stay. Furthermore a descriptive study by (Perez, 1994) on the management of hip fractures concluded that participation in early mobilization is imperative to the primary objectives of maximizing functional independence while preventing secondary complications which would prolong length of hospital stay.

The focus of this study was to examine the relationship of patient participation in mobilization on length of hospital stay in hospitalized adults with fractured tibia and fibula. It is postulated that as patient participation in mobilization increases, length of hospital stay is reduced. Therefore it becomes a challenge to health care professionals, including medical-surgical nurses, to learn how patients know, understand and can participate in their own care. As patients are empowered and gain a sense of control, it should be natural to assume that there may be enhanced patient participation (Porteous et al 1994) in mobilization thereby reducing the length of hospital stay.

Research studies have focused on pain and anxiety management, cost containment, educational input, nosocomial infection and maintaining equilibrium in relation to length of hospital stay. However, it would appear that a gap exists in
nursing knowledge regarding the relationship of patient participation in mobilization of hospitalized adults with fractured tibia and fibula on length of hospital stay.

Roy's adaptation model was used as the foundation of this study. The concepts of the model that relate to this study are environmental stimuli, adaptation and health. The independent variable is patient participation in mobilization which is adaptation and the dependent variable is length of hospital stay, which is health. Roy (1991) identifies environmental stimuli namely: focal, contextual and residual. In this study, fractured tibia and fibula is the focal stimulus. The contextual and residual stimuli in the study comprise the following: the type of fracture, pain management, demographics, and infection.

Purpose
The purpose of this study was to describe patient participation in mobilization of adult patients with fractured tibia and fibula as well as to examine the relationship between patient participation in mobilization on the length of hospital stay.

Research Objectives

The research objectives for this study are to:

1. Identify perceptions of patient participation in mobilization in hospitalized adults with fractured tibia and fibula.

2. Identify the length of hospital stay in hospitalized adults with fractured tibia and fibula.

3. Examine the relationship between patient participation in mobilization and the length of hospital stay in hospitalized adults with fractured tibia and fibula.
Theoretical Framework

Sister Callista Roy's Adaptation Model (Andrew & Roy 1991), guided the conceptualization of this study. The rationale for selecting Roy's model was that it relates the promotion of adaptation to an acute health problem such as fractured tibia and fibula when mobility is threatened. The framework is considered appropriate to facilitate the examination of patient participation in mobilization on length of hospital stay. Andrews and Roy (1991) propose that a person who is actively involved in the formulation of goals is more likely to be committed to the attainment of each goal.

According to the Roy's Adaptation model of nursing, persons are biopsychosocial beings in constant interaction with a changing environment (Andrews & Roy 1991). A patient who suffers a fractured tibia and fibula faces changes of environment and routine, which incurs dependent and independent states and discomforts regarding the act of mobilizing (Roper, Logan & Tierney 1987). The model describes nursing as the science and practice of promoting adaptation for the purpose of affecting health positively. Health is defined as a state and process of being and becoming an integrated whole person and environment, as all conditions, circumstances and influences that surround and affect the development and behaviour of the person (Andrews & Roy 1991a, p.18 , p.19). Persons cope with the changing environment by a positive response known as adaptive modes, physiologic, self-concept, role-function and interdependence modes. Therefore the goal of nursing is to promote positive and effective adaptation to imposed change such as fractured tibia and fibula. The concepts of Roy's Adaptation model that relate to this study are environmental stimuli, adaptation and role function mode.
According to Roy, (Andrews and Roy 1991) an environmental stimuli is an internal or external change or stimulus that affects the behaviour of a person. Environmental stimuli comprise: focal, contextual and residual components. These environmental stimuli affect the person's ability to adapt physiologically, psychologically, socially and interpersonally. The focal stimulus is the internal or external stimulus immediately confronting the person. In this study, fractured tibia and fibula is the focal stimulus. The contextual stimulus is all other stimuli of the internal and external world that influence the situation. In this study, the type, site, pain and management of the fracture are regarded as the contextual stimulus. The residual stimulus comprise those personal and ideological factors that may affect the person. In this study the person's age, sex and socioeconomic status are viewed as the residual stimulus.

The concept of adaptation is a core component of the adaptation model (Andrews & Roy 1991). Adaptation is viewed as both a process and a state. The person's adaptation level refers to coping mechanisms that are triggered to produce adaptive or ineffective responses. Roy indicates that, it is not a passive process but is always positive, active and creative, hence, in this study patient-participation in mobilization is reflective of adaptation. Adaptation is a state of dynamic equilibrium which is the result of cumulative effects of the ongoing process of adaptation. Adaptation can be described as conditions which promote the goals of the human system and the individual goals of the person such as patient participation in mobilization. When the environmental stimuli fall within the person's zone of adaptation, adaptive responses occur and energy is freed for response
**ROY'S CONCEPTUAL FRAMEWORK FOR STUDYING THE RELATIONSHIP OF PATIENT PARTICIPATION IN MOBILIZATION AND LENGTH OF HOSPITAL STAY IN PATIENTS WITH FRACTURE TIBIA AND FIBULA**

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- **CONTEXTUAL & RESIDUAL STIMULUS**
  - TYPE OF FRACTURE AND SITE
  - TYPE OF MANAGEMENT
  - PAIN
  - DEMOGRAPHICS/HEALTH BELIEF AND VALUES
  - EDUCATION
  - INFECTION

A

PATIENT PARTICIPATION IN MOBILIZATION

B

C

LENGTH OF HOSPITAL STAY
therefore promoting integrity or health. In this study, patient participation in mobilization is akin to adaptation in that the energy released as a result of the adaptive responses to the environmental stimuli, should enable the patient to achieve mobility.

Health is dynamic, it is a state and a process of becoming an integrated whole person (Andrews & Roy, 1991). In this study health is the length of hospital stay, in that the ability of the patient to function determines his stay. Health as length of hospital in this study, is the positive activity of the patient as he achieves integrity. Therefore the patient displays healthful behaviours as he successfully fulfills activities of daily living.

Conceptual Definition of Terms

Patient participation in mobilization

Patient participation in mobilization refers to the involvement of the patient in performing exercises and self-care activities of daily living.

Length of Hospital Stay

Length of hospital stay refers to the period from the date of hospital admission to the date of discharge.

Adaptation

Adaptation refers to the ability of the body to free energy so as to respond to confronting stimuli which is a fractured tibia and fibula, thus achieving mobilization which promotes integrity.
Health

Health refers to the achievement of mobility as the patient recovers and starts fulfilling activities of daily living.

Summary

Length of hospital stay is defined as the period the patient is hospitalized and is currently one of the major concerns in medical-surgical nursing because of the need to contain costs, reduce potential surgical complications, and minimize exposure to infection. Innovative programmes and investigations are being carried out internationally to address the problem of length of hospital stay as health care delivery systems are shifting towards home-based care in order to contain costs. In Zimbabwe a patient who earns $400.00 and above per month is expected to pay hospital fees. The cost incurred in attending to a patient with a fractured tibia and fibula would total to $1 218.00 on the day of operation and $375.00 per day for general ward fees, as instituted by the Ministry of Health and Child Welfare. Given a central hospital's statistic report of an average stay of 21 days for a patient with a fractured tibia and fibula it becomes crucial for the patient's length of hospital stay to be limited to that which is only surgically necessary.

Length of hospital stay, if prolonged in adult patients with fractured tibia and fibula disrupts the patient's psychosocial disposition. This affects the patient's coping mechanisms, exposing the patient to more complications and prolonging the length of hospital stay. Further lengthening of the length of hospital stay could be caused by mismanaged pain and anxiety which may hinder the recovery process. Furthermore, length of hospital stay impacts on bed occupancy, affecting the nurse-patient ratio and possibly compromising the quality of care given.
Patient participation in mobilization empowers the patient to achieve early recovery which may reduce the length of hospital stay. Participation in mobilization is enhanced by the patient's perception of participation as outlined by the defined attributes of the concept of patient participation which include, relationship, involvement, being knowledgeable, and exhibiting willingness to participate. Participation in mobilization maintains muscle mass and strength thereby preventing muscle atrophy, a complication that would prolong length of hospital stay. However, patient participation in mobilization and self care activities could be limited by conservative attitudes of doctors, nurses and routines in post operative care. A patient who suffers a fractured tibia and fibula faces challenges in mobilization. Mobilizing has been described as one of the highly valued human activities and the relationship of mobilizing to other activities of living is apparent in that all involve movements. This study seeks to fill the gap in nursing knowledge by proposing that enhanced patient participation in mobilization could reduce length of hospital stay.

Roy's adaptation model provides the foundation for this study. The concepts of the model that relate to this study are environmental stimuli, adaptation and health. The classification of the environmental stimuli is focal, contextual and residual. In this study fractured tibia and fibula is the focal stimulus. The contextual and residual stimuli in the study comprise: the type, site, pain, management of the fracture, infection and demographics. The independent variable is patient participation in mobilization which is adaptation and the dependent variable is length of hospital stay which is health.
This study will attempt to answer the following research questions:

1. What is the patient's perception of participation in mobilisation?
2. What is the length of hospital stay for hospitalized patients with fractured tibia and fibula?
3. Is there a relationship between patient participation in mobilization and length of hospital stay, in hospitalized adults with fractured tibia and fibula?

Significance to Nursing

This study contributed to knowledge, education and practice for the discipline of nursing. The knowledge that is contributed by the study should influence the practice of nursing and enable the generation of further research in medical-surgical nursing, in particular care of orthopaedic patients. Incorporation of the concept of patient-participation in the nursing curriculum, would assist the nurse to be sufficiently knowledgeable whilst facilitating the acquisition of the skill of patient-participation by the patient. The empowered patient, would be expected to willingly involve himself in his own care management.

Length of hospital stay would influence the planning of care by the medical-surgical nurses and allocation of resources, thereby creating the need to be cost-effective, and the need to minimize surgical complications and infections. Through the development of a nursing care model, that is patient centred, blending scientific technology and humanistic care, it should be possible to provide guidance for clinical practice. To the medical-surgical nurse, a reduction in the length of hospital stay would provide the impetus for a holistic approach to providing care, a principle cherished in clinical practice.
CHAPTER 2
LITERATURE REVIEW

This chapter presents a review of current and pertinent literature, focusing on the variables, length of hospital stay as the dependent variable and patient participation in mobilization as the independent variable and the theoretical model. The literature is examined in light of the variables under study.

Length of Hospital Stay

Length of hospital stay refers to the period from the date of hospital admission to the date of discharge in this study. Length of hospital stay is currently an area of concern in medical-surgical nursing as the length of hospital stay not only determines the financial cost incurred by the patient (Marchette & Holloman, 1986) but also the potential complications that the patient may develop. Engelman (1996), recognized the problem of length of hospital stay in surgical patients and introduced a fast track protocol that was associated with aggressive ambulation of patients, as a mechanism to reduce length of stay with concomitant reduction in hospital cost. Engelman's (1996) retrospective comparative study found that 48% of patients on the fast protocol were discharged at three to five days compared to 26% of patients on the non-fast track. In addition a post discharge questionnaire demonstrated a 77% comfort level from patients who were discharged early.

Orthopaedic patients were chosen as the target population for this study because they are usually mentally alert and therefore in a position to communicate their needs, observations and intentions clearly. At one of the central hospitals in
Zimbabwe, the average length of hospital stay of a total admission of 114 patients with fractured shaft of tibia and fibula was 21 days (Parirenyatwa Hospital Statistics, 1997). Twenty one days of hospitalization is costly to the patient and therefore crucial for the patient's length of stay to be limited to that which is only surgically necessary. In Zimbabwe a patient who earns four hundred dollars and above ($400.00) per month is expected to pay hospital fees. The cost incurred in attending to a patient with a fractured tibia and fibula is one thousand two hundred and eighteen dollars ($1,218.00) on the day of operation and three hundred and seventy-five dollars ($375.00) per day for general ward fees, as instituted by the Ministry of Health and Child Welfare (1996). Perhaps, shortening the length of hospital stay would benefit the patient in terms of cost incurred and reduce exposure to surgical complications and infections.

Internationally, the need for addressing the length of hospital stay has evoked innovative programmes and home based care (Kim et al, 1993) which is cost containing. The World Development report (1993), state that in every developing country, including Zimbabwe, decisive steps are needed to correct inefficiency of clinical health programmes especially of Government services where hospitals keep patients longer than necessary. In the United States of America, the diagnosis related groups reimbursement system, pays a fixed amount based on the type of patients regardless of length of stay or cost. The hope being that, the diagnosis related groups would give hospitals an incentive to shorten lengths of stay and decrease costs (Finkler & Kovner, 1993). Therefore medical-surgical nurses in Zimbabwe are being challenged to address length of hospital stay so as to be cost-
effective and efficient.

Health care providers have speculated about factors that influence or are related to length of stay, but findings of previous research studies were either scientifically unsound or conflicting (Marchette & Holloman). The exception was timing for discharge planning which has some influence on the length of stay with medical-surgical and in orthopaedic patients. Marchette and Holloman (1986) conducted a study that investigated relationships between patient variables and length of stay. They developed an original framework for the study which included six factors believed to affect the length of stay. These six factors are also used to determine patients' diagnosis related groups reimbursement system and comprise: principal diagnosis, co-morbidities, discharge status, treatment procedures, complications and age. A correlational descriptive study was designed to determine the extent to which patient's length of stay in an acute hospital was related to the number of areas of nurse's discharge planning. The five areas of discharge planning observed and documented on the discharge summary sheet were nutrition, medication, activity, psychosocial needs and physical needs. Two notable findings emerged, the first being, for every area of discharge planning, the nurse carried out, (nutrition, medication, activity, psychosocial and physical) there was a decrease of 0.8 days of hospitalization. The second finding was a strong relationship between the timing of the planning and the length of stay although statistical significance was not reported. For every day that their planning was postponed, the report stated that there was an increase of 0.8 days of hospitalization although no statistical evidence was reported. The investigators could not conclude cause and
effect, but these findings strengthened their belief in the value of early and comprehensive discharge planning by nurses. It is anticipated that, only when the patient with a fractured tibia and fibula participates fully in his own management of care that progress in attaining health is evidenced. Nurses however, will need to give the necessary knowledge and skills so as to provide the impetus for patient participation in care, thus reducing length of hospital stay.

Farnworth, Kenny and Shiell (1994) evaluated the cost effectiveness of a fractured hip management programme, by considering available measures of patient outcomes and comparing the cost of the programme with the value of resources freed by reductions in length of hospital stay. The programme adopted a multidisciplinary approach to care. The goals of the programme were to reduce delays before surgery, provide specialist medical supervision, improve early post operative mobility, plan for hospital discharge with rehabilitation in the patients' normal environment and provide continuity of care. A reduction in cost was without impairing health outcomes. This study proposes that early mobilization, rehabilitation and continuity of care would be ideal for adult patients with fractured tibia and fibula because most of the healing will occur post discharge (Smeltzer & Bare, 1996).

Penderson, Douville and Eberlein (1994), instituted an accelerated surgical stay programme to increase cost efficiency while maintaining standard of care for patients having breast surgery. A multidisciplinary task force was formed to analyze and reduce lengths of stay and to standardize clinical protocols to address breast surgery issues. After one year the results of the study were that there was a 39%
decrease in average length of stay and a 22% increase in patient volume. The study concluded that as a management strategy, the programme increases operating efficiency and reduces cost without compromising quality of patient care. The success of the programme was attributed to the support from senior management and expansion of valuable educational resources for patients. A knowledgeable patient should be empowered to participate in his care by mobilizing, promoting self-integrity and contributing to the success of care management. This should promote the self-image of a patient with a fractured tibia and fibula who is confronted with deformity.

Length of hospital stay, if extended, predispose patients to nosocomial infections (Kandula & Wenzel, 1993). Nosocomial infection presents a prolongation of hospital stay and an increase of costs (Pena, et al 1996; Vegas, Jodra & Garcia 1993). Pena, et al (1996) carried out a study to identify prolonged length of hospital stay due to nosocomial infection and the cost. A matched, case-control design and sample of 63 patients with surgical site infection was utilized. The results were that the median of post operative stay was twenty-one days for cases with surgical site infection versus ten days for the controls, implying that the cost for surgical site infection was greater. The study concluded that nosocomial infection produces an increased median stay of seven to ten (7-10) days, and that in the absence of a precise accounting system, the prolongation of hospital stay was considered as the more objective data to estimate costs. Vegas, Jodra and Garcia (1993) found that nosocomial infections in surgical wound infections such as with fractured tibia and fibula prolonged the average hospital stay of the nosocomially infected patient by an
average of 12.6 days and wound infection by 14.3 days as compared to the uninfected matched controls. These results suggest that infection control and maintenance of a clean environment could concomitantly reduce the risk of nosocomial infection thereby shortening the length of hospital stay for hospitalized adults with fractured tibia and fibula.

Length of hospital stay may also be prolonged as a result of the patient suffering from mismanaged pain and anxiety. Descriptive research analyses indicate that post-operative pain may be detrimental to recovery (Devine 1993). Perception and reaction to pain is influenced by many factors, namely; beliefs, values, culture, number and magnitude of stressors (Smith and Duell 1985). To achieve optimal pain management, the nurse needs to understand the subjectivity of pain, the patient's disposition and her own values about pain. Moiniche, et al (1994) conducted a study that addressed the effect of balanced analgesia on early convalescence, after major orthopaedic surgery. The study revealed that the achieved pain relief had no impact on post-operative convalescence parameters such as ambulation, patient activity including need for nursing care, fatigue or hospital stay. The study concluded that, patients' late post-operative pain and fatigue as well as conservative attitudes of doctors and nurses in post-operative care were the most important reasons limiting mobilization and self-care. The findings of (Moiniche et al's 1994) study addressed by Roy's concept, that a patient is a unique, biopsychosocial being, who requires holistic nursing interventions, with his full participation, in the management of care (Fawcett 1996).

A positive perception of pain, leading to early discharge from hospital could
be facilitated by an educational intervention. Devine and Cook (1983) carried out a meta-analysis of forty nine studies of the relationships between brief psychoeducational interventions and length of stay post surgical hospitalization. The results showed that interventions reduced hospital stay by 1.25 days. Equipping the patient with the necessary information, support and a positive self concept (Challey 1992) should empower and encourage the patient to be active in mobilization and recover early, thus reducing length of hospital stay. It would appear that the nurses's and doctors's sharpened awareness in reducing hospital stays for patients can yield positive results. Weingarten, Agocs, Tankel, Sheng and Ellrodt (1993) carried out a study to examine the effect of educating physicians about practice guidelines to promote shorter lengths of stay for patients hospitalized with chest pain. Two-hundred and eight patients were enrolled in the study and following implementation of the practice guidelines, length of hospital stay was reduced from 2.51 to 1.96 days and none of the patients treated according to guideline recommendations had unexpected adverse events. This suggests that psychoeducational interventions not only of patients but of health care providers may reduce length of hospital stay.

Prolonged length of hospital stay in adult patients with fractured tibia and fibula may disrupt the patient's psychosocial disposition. Henderson (1978), states that dependency and loss of social stimuli result in apathy, frustration and hopelessness. Ignatavicius (1991), also states that this psychosocial disequilibrium can affect the patient's coping mechanisms. When the patient's coping mechanism is disrupted, a longer time is needed for readjusting, thereby exposing the patient to
more complications and further prolonging length of hospital stay. Erickson and Swain's (1982) descriptive - Correlational study on adaptive potential and length of hospital stay on medical-surgical patients, found that the patient in psychosocial equilibrium had the shortest recovery rate and shortest hospital stay with a mean of 9.4 days. This suggests that a holistic approach in caring for patients with fractured tibia and fibula may provide the impetus for patient participation which would assist in shortening the length of hospital stay.

Length of hospital stay also impacts on hospital bed occupancy. In Zimbabwe central hospital ward beds are always occupied because they serve as referral hospitals. This full bed occupancy, creates a high nurse-patient ratio. Makoni, (1994) made reference to orthopaedic wards where the nurse-patient ratio was 1:10 compared to 1:3, a ratio recommended by the Modified Newcastle Formula (Newcastle in Barret, Gessner & Phelps, 1968) for staffing adopted by the Zimbabwe Ministry of Health and Child Welfare. Makoni, (1994) also referred to the potential effect that this high nurse-patient ratio had in compromising the quality of care given. Perhaps compromised quality of care prolongs the length of hospital stay and if such care is coupled with early discharge may cause increases in hospital readmission rates.

It would appear that providing good quality care could possibly both reduce length of hospital stay and readmission rates. Harrison, Graff and Brownell's (1996), retrospective descriptive study, to determine whether decreasing length of hospital stay was associated with increased readmission rates, indicated that, improving the quality of care given and hospital efficiency by shortening length of
hospital stay, did not appear to result in increased rates of readmission and added that research was needed to identify optimal lengths of stay and readmission rates.

Length of hospital stay has been investigated in medical-surgical patients: who had an input in discharge planning, orthopaedic patients with management of fractured hip, surgical patients undergoing breast surgery, surgical patients exposed to nosocomial infection, medical-surgical patients with mismanaged pain and anxiety, orthopaedic patients who received balanced analgesia, medical-surgical patients who received psychoeducational interventions and medical-surgical patients with stress. Length of hospital stay has been investigated in the context of occupancy and quality of care given. It would appear that a gap in nursing knowledge exists regarding patient participation in mobilization of hospitalized adults with fractured tibia and fibula on length of hospital stay. There is therefore a need to investigate the relationship of patient participation in mobilization on length of hospital stay in hospitalized adults with fractured tibia and fibula.

Patient Participation in Mobilization

This study proposes that patient participation in mobilization involves the concept of participation and involvement in mobilization. Patient participation is enabled by the energy released as a result of adaptive responses to the fractured tibia and fibula. The freed energy would also enable the patient to respond to other confronting stimuli, thus achieving mobility and integrity.

Patient Participation

Patient participation refers to the understanding of the concept of participation and activities performed by the patient with a fractured tibia and fibula
towards maintaining health. Cahill (1995), states that currently, the role of patients and the imbalance of power that has favoured health-care professionals has changed to that of an active consumer. Sutherland et al (1989) in Cahill (1995) concur and state that there are ethical, legal and social reasons for role change of the patient. Ethically, there has been a change from a paternalistic philosophy of care to one in which autonomy and patient self-determination are promoted (Smeltzer & Bare, 1996). This role change has legal connotations particularly in the area of informed consent (The Patient's Charter, Zimbabwe, 1996). Socially, the current movement advocates that the patient is a health-care consumer with rights to information, interaction and participation (Ashworth, Longate & Morrison 1992). The World Health Organization Audit Commission (1993) in Cahill (1995) states that, patients have a right and responsibility to be involved in their health-care. Oxler, (1997) claims that patients demand to be active participants within the health care team to design their care regimen. Patients bring unique perceptions and expectations and use these to evaluate service quality and satisfaction.

Meier and Purtilo (1994) explain that a motivated patient will participate in the treatment plan, but rehabilitation professionals prefer patients who comply with the original treatment plan. Thus, conflicts arise when patients do not comply and the dichotomy between patient autonomy and medical paternalism ensues. Mutual respect such as experienced in friendship provides a useful model for this idealized patient-care interaction. Ashworth, Longate and Morrison (1992), commented on the fact that the society of which nurses are a part has increasingly accepted the ethos of individual freedom and responsibility. Market liberalism is clearly at odds
with paternalism inherent in the medical model of health currently implemented in most health care institutions in Zimbabwe (Zimbabwe Health For All Action Plan, Ministry of Health and Child Welfare, 1992).

The concept of patient participation has become a widely accepted tenet in contemporary nursing practice (Cahill 1995) as it results in increased patient responsibility, commitment to health and health promoting behaviours, improvement in self-esteem, mental health and reduces alienation (Jewel 1994). Saunders (1995) in Cahill (1995) confirms that, patient participation is an active process in that it involves patients performing clinical or daily living activities or partaking in the decision making process from the time of admission until discharge, thereby achieving health and serving to reduce length of hospital stay.

Utilizing Walker and Avant's (1988) model of concept analysis, Cahill (1995), identified and explored the attributes of the concept of patient participation, in order to clarify and elucidate the meaning and nature of the concept within the context of nursing practice. Cahill (1995) proposed the following parameters as defining attributes of the concept of patient participation: a relationship must exist; there must be narrowing of the appropriate information and/or competence gap between the nurse and patient using suitable modalities in different contexts; there must be a surrendering of a degree of power or control by the nurse; there must be engagement in selective intellectual and/or physical activities during some of the phases of the health care process and there must be a positive benefit associated with the intellectual and/or physical activity. Therefore the attributes of the concept should serve to empower the patient and enhance adaptation leading to health.
The antecedents and consequences of the concept are implied in the defining attributes such as respect for individuality; reciprocity in the nurse-patient relationship; a desire on the part of the nurse to relinquish a degree of power, control and authority and a desire on the part of the patient to assume a degree of power, control and responsibility and understanding on the part of the patient of appropriate information and knowledge given by the nurse. Consequences of the concept include the following: a sense of contribution by the patient; improved nurse-patient communication and satisfaction; decreased number of complaints; feedback about services provided; patient empowerment; enhanced decision making; increased understanding and better management of care and diminished feeling of powerlessness, apathy and dependency. Coyne (1996) when analysing parent participation, summarized the attributes of the concept of participation as including negotiation, control, willingness, competence and autonomy.

According to Walker and Avant (1988) in Cahill (1995) empirical referents are used to diagnose the existence of a concept. Cahill (1995) states that owing to the multifactorial nature and complexity of patient-participation within the context of nursing practice, empirical referents are difficult to define, hence few empirical studies have been undertaken to test the hypothesis that patient-participation is a good thing. Cahill (1995) also stated that, testing the extent to which patient participation within the context of nursing practice at present might need the use of nursing records or observation schedules and data extracted directly from patients and nurses. In this study the investigator extracted information directly from the patients and used nursing records. Roy's model of adaptation views the person as
an active participant in personal care (Fitzpatrick and Whall 1996).

Mobilization

The history of mobilization shows that people over the centuries have engaged in exercise for four reasons; health, military preparedness, enjoyment and or social values and for physical development (Henderson, 1978). Henderson (1979), stressed the importance of body mechanics in preventing deformity and malfunction of the patient during illness and included mobilizing as one of the activities of daily living in the components of basic nursing.

Roper, Logan and Tierny (1987), also describe mobilizing as one of the essential and highly valued human activities and that any trauma, whether physical or psychosocial which cause limitation on movement can be devastating. The activity of living of mobilizing, includes the movements produced by groups of large muscles enabling people to sit, and walk as well as smaller muscles producing movements such as facial expressions, hand gesticulations and mannerisms. The necessity of mobilizing in other activities of living is apparent in that all involve movement (Roper, Logan and Tierney 1987). Therefore mobilization can determine one's length of hospital stay.

Roper, Logan and Tierney (1987), state that patients experience challenges in mobilizing with changes of environment and routine, such as the hospitalized adult patient with a fractured tibia and fibula. It is important for the patient to know what he can do and what he should not do in relation to mobilizing. Therefore patient participation is vital to achieve mobilization, which may enhance integrity and health thereby reducing length of hospital stay.
Henderson (1978) emphasises that immobile patients require muscle and joint activity from the very beginning of immobilization in order to prevent further discomfort and disability. Kottke, in Henderson (1978) explain that when a muscle is kept at complete rest, loss of muscle strength occurs at a rate of 10 - 15 per cent per week of inactivity and that immobility foster bone destruction and osteoporosis. Patients may not co-operate in doing range-of-motion and muscle exercise daily as prescribed, especially if they are trying to deny incapacitation (Henderson 1978) and fulfill the sick role (Andrews & Roy, 1991) which would in turn reduce patient participation and increase length of hospital stay. Careful explanation by the nurse of the condition fractured tibia and fibula and the need to immobilize and support the affected part only so as to promote healing after injury, may allay anxiety and increase patient participation in mobilization. Dependency and loss of social stimuli result in frustration, hopelessness and apathy and this may prolong length of hospital stay. The nurse should therefore listen actively and allow the patient to verbalize concerns and let him work through these feelings so that he can restore his image, personal worth and dignity (Roper, Logan and Tierney 1978). Once the patient is aware of his strengths and weaknesses, he should develop the necessary motivation to help plan and actively participate in mobilization thereby attaining integrity, and reducing length of hospital stay.

Nurses need to develop professional competence in judging the patient's individuality in readiness for regaining independence for mobilizing (Roper, Logan and Tierney 1978). A multidisciplinary and collaborative approach in management should assist medical-surgical nurses planning mobilization and the type of
exercise to be performed by a hospitalized adult patient with fractured tibia and fibula. Smeltzer and Bare (1996) recommend full-range of motion for all unaffected limbs, toes and fingers as well as muscle setting exercises which promote isometric contraction of the muscle that maintains muscle mass and strength, thereby preventing muscle atrophy.

Smeltzer and Bare (1996), describe quadriceps setting exercises and gluteal setting exercises for patients with lower limb fractures. For the quadriceps setting exercise, the patient is in the supine with the leg extended. The patient is instructed to push knee back onto the mattress by contracting the anterior thigh muscles. The patient is encouraged to hold the position for 5 to 10 seconds then relaxes and is to repeat the exercises 10 times each hour when awake. The gluteal setting exercises require the patient to be in a supine position with legs extended if possible. The patient is instructed to contract the muscles of buttocks and abdomen. He is encouraged to hold contraction for 5 to 10 seconds then relaxes and repeats 10 times each hour when awake. Using the same protocol, triceps muscles are exercised. Equipped with this knowledge the patient may adapt and mobilize with ease. Medical-Surgical nurses should focus their efforts toward developing the independence of patients and should assist them only when patient-participation is prohibited (Henderson 1978).

Cook, Szabo, Birkholz and King (1995), carried out a descriptive study of fifty patients undergoing surgery for idiopathic carpal tunnel syndrome to determine the value of splintage of the wrist post surgery. Patients were randomized to either being splinted for 2 weeks following surgery or to begin range-of-motion exercises.
The variables assessed included, return to activities of daily living, pain level and occurrence of complications. Patients who were splinted had significant delays in returning to activities of daily living and suffered increased pain and scar tenderness. Early mobilization of the wrist and fingers was recommended suggesting that it may be possible to achieve similar results on patients with fractured tibia and fibula. A descriptive study by Perez, (1994), of the management of hip fractures concluded that early mobilization is imperative to the primary objectives of maximizing functional independence while preventing secondary complications.

Studies reviewed focused on the role of motivation in patient participation, mobilization of the wrist post surgery, and management of hip fractures including early mobilization. Although patient participation is a new nursing phenomenon being promoted, it would appear a gap in nursing knowledge exists regarding patient participation in mobilization of hospitalized adults with fractured tibia and fibula. Therefore, there is a need to investigate the relationship of patient participation in mobilization on length of hospital stay in hospitalized adults with fractured tibia and fibula.

Patient participation in mobilization should empower the patient to achieve early recovery which may reduce the length of hospital stay. Patient participation has become a widely accepted tenet in contemporary nursing practice as it results in health promoting behaviours. An analysis of the concept has elucidated its meaning and Coyne (1996) summarized the attributes of participation as negotiation, control, willingness, competence and autonomy. Mobilization has been described as an essential and highly valued human activity which embraces all activities of daily
living. Reviewed literature has suggested that patient participation in mobilization may promote early recovery and reduce length of hospital stay.

Participation in mobilization is enhanced by the patient's perception of participation such as understanding the need for a nurse-patient relationship, being involved in care, being knowledgeable and exhibiting willingness to participate. Participation in mobilization maintains muscle mass and strength, thereby preventing muscle atrophy. However, patient participation in mobilization and self-care activities of daily living could be limited by health care personnel's conservative attitudes and routinization of care. This study seeks to fill the gap in nursing knowledge by proposing that enhanced patient participation could reduce length of hospital stay.

Roy's Adaptation model provides the conceptual foundation for this study. Roy's concepts that relate to this study are environmental stimuli, adaptation and health. The focal stimulus in the study is the fractured tibia and fibula. Adaptation is patient participation in mobilization in that the energy released as a result of adaptive responses to environmental stimuli, should enable the patient to achieve mobility. Health is the length of hospital stay in that, the ability of the patient to function determines his stay. Nursing researchers have used the adaptation model as a framework for research successfully, hence it has been chosen to guide the conceptualization of this study.

The Theoretical Model

The Roy Adaptation model was chosen to guide the conceptualization of this study (Andrews & Roy 1991). Roy's Model consists of the central concepts of
nursing which are person, nursing, health and environment. Persons are biopsychosocial beings, viewed as living adaptive systems whose behaviours may be classified as adaptive responses or ineffective responses. These behaviour's are mediated by the regulator and cognator mechanisms. The mechanisms work within the four adaptive modes of physiological function, self-concept, role function and interdependence. This goal of nursing is to promote adaptive responses in relation to the adaptive modes. This is attained by utilizing information about the person's adaptation level, and the environmental stimuli. Man's adaptation is a function of the stimulus he is exposed to and his adaptation level. Man's adaptation level is such that it comprises a zone which indicates the range of stimulation that will lead to a positive response. If the stimulus is within the zone, the person responds positively. If however, the stimulus is outside the zone, the person cannot make a positive response. Nursing activities are directed towards manipulation of these stimuli to promote adaptive responses. Health is a state and a dynamic process of becoming an integrated whole and be able to meet the goals of survival, growth, reproduction and mastery (Fawcett 1995).

In basic nursing science, the model has been used as a framework for exploring how the cognator coping mechanism acts to promote adaptation and its relationship to the four adaptive modes and for examining the relationship of adaptation to health (Fitzpatrick & Whall, 1996). Scholars who have used the adaptation model as the conceptual basis for their research have found it to be useful in identifying the concepts and variables to study and in selecting instruments to measure or operationalize these variables. The model has been used as a
framework for research by Roy and others (Limadri, 1986 in Fitzpatrick & Whall 1996).

Limadri (1986), used Roy's model as an explanatory framework for research and practice with abused women. The research used the descriptive-correctional design in which the sample was interviewed using a researcher developed interview guide. The sample consisted of 40 women only and as a result of the small sample the statistical results were not significant, but the content analysis contributed knowledge to the discipline of nursing. The model guided the explanation of the women's behaviour according to the modes; physiological function, self-concept, role function and interdependence.

Brydolf and Segesten (1996) used Roy's model to carry out an inductive study aimed to describe the adolescents' experiences of living with ulcerative colitis. A total of 28 subjects were asked about their experiences. Dependent on the reactions received from significant others, the outcome for the adolescents ranged between feelings of self-confidence and lack of self-confidence. The self-concept mode of the model was used as the foundation of the study. The self-concept mode focuses on the psychological and spiritual aspects of the person. It has sub-areas: the physical self and the personal self, and these sub-areas are further divided into five components: body sensation, body image, self consistency, self ideal and moral-ethical-spiritual self. The model was instrumental in categorizing the adolescents' behaviour, and provided a focus for nursing interventions, in clinical practice as well as in community health care-systems.

The concepts of Roy's Adaptation model that relate to this study are
environmental stimuli, adaptation and health. In this study, the focal stimulus is the fractured tibia and fibula. Adaptation is patient participation in mobilization. Health is the length of hospital stay, in that the ability of the patient to function determines his stay.

Summary

Length of hospital stay is the period the patient is hospitalized and is currently one of the major concerns in medical-surgical nursing, because of the need to contain costs, reduce potential surgical complications and minimize exposure to infection. Medical-Surgical nurses in Zimbabwe, one of the developing countries, are challenged to reduce length of stay so as to be cost effective and improve hospital efficiency. Given a central hospital's statistic report of an average stay of 21 days for a patient with a fractured tibia and fibula, it becomes crucial for the patient's length of stay to be limited to that which is only surgically necessary.

Discharge planning has been found to be related to length of hospital stay and instituted programmes of care to reduce lengths of hospital stay have proved to be cost-effective. Psychoeducational interventions not only of patients but of health care providers including medical-surgical nurses have also reduced length of hospital stay.

It has been noted that nosocomial infections as well as mismanaged pain and anxiety may hinder the recovery process and prolong hospital stay and increase costs. Length of hospital stay, if prolonged in adult patients with fractured tibia and fibula disrupts the patient's psychosocial disposition. This affects the patient's coping mechanisms exposing the patient to more complications and prolonging the
length of hospital stay. Furthermore length of hospital stay impacts on bed occupancy, affecting the nurse-patient ratio and possibly compromising the quality of care given.

Roy's adaptation model provides the conceptual framework upon which this study is based. The model becomes appropriate for this study because it has clearly demonstrated its usefulness in research by explaining persons' adaptive responses to changes in the environment as a means of maintaining health.
This chapter presents the methodology, that gave the study its scientific merit which according to Polit and Hungler (1995) is the degree to which a study possesses theoretical relevance and internal and external validity. The study intended to examine the relationship between patient participation in mobilization and length of hospital stay in hospitalized adults with fractured tibia and fibula. The methodology included, addressed the research design sampling plan, sampling size, sampling procedure, variables, operational definitions, instruments, data collection procedure, protection of patients and data analysis.

Research Design

This study used the quantitative approach and the design used was the descriptive correlational design. Polit and Hungler (1995), describes correlational research as investigations that explore the interrelationships among variables of interest without any active intervention on the part of the investigator. The aim of descriptive correlational research is to describe the relationship among variables rather than to infer cause and effect relationships. The variables under study are patient-participation in mobilization as the independent variable and length of hospital stay as the dependent variable. The design described the frequencies of how often the phenomena occurred and also explored the link between the two variables as to whether or not they relate to each other at one moment in time in a natural setting. The study described the patient's perception of participation in mobilization.
and examined the relationship between patient participation in mobilization and length of hospital stay in hospitalized adults with fractured tibia and fibula.

Sampling Plan

Polit and Hungler (1995) and Burns and Grove (1993), refer to a sampling plan as the process of selecting a portion of the population to represent the entire population. The process includes: the selection of a sampling plan, the selection of a sampling method, the specification of a sample size and the selection of procedures for recruiting the subjects (Polit & Hungler 1995). Data are generally collected from a sample rather than from an entire population. The advantage of using a sample is that, it is more practical and less costly than collecting data from the population. However, the risk of using a sample, may be that the sample selected does not reflect the behaviours, traits, symptoms or beliefs of the population (Burns & Grove, 1993). The methods used vary but their adequacy is assessed by the same criterion, which is the representativeness of the selected sample. The quality of the sample is a function of how representative the sample is of the population under study with respect to the research variables (Polit & Hungler, 1995).

The investigator had initially planned to use the systematic random sampling method, this was not possible because of the shortage of orthopaedic surgeons and the continued shortage of health care workers, that had necessitated the introduction of a management protocol that was managing patients with fractured tibia and fibula as outpatients. Therefore the accessible population were those who were available to the investigator. Probability sampling aims for generalizability of
The study sites were orthopaedic wards in two major referral Central Hospitals in Zimbabwe. The two hospitals are Government central hospitals and are similar in that they are referral hospitals offering similar services regarding the provision of nursing care to patients, prevention and rehabilitative activities, which reduced bias. The subjects were adult male and female patients with fractured tibia and fibula.

The target population were male and female patients from 18 to 45 years with compound mid-shaft fractured tibia and fibula. The accessible population were patients in orthopaedic wards at the two central hospitals in Zimbabwe.

Sample inclusion criteria included the essential characteristics of the target population so as to achieve homogeneity, control extraneous variables, provide a guideline for sample recruitment (Burns & Grove 1993). In this study adults from 18 to 45 years with compound mid-shaft fractured tibia and fibula, who spoke Shona and/or English were selected. The patients should have been in the ward for three days, and should have been ready for interviewing on the second day post reduction, because this is when full participation in mobilization was expected.

Exclusion criteria refers to excluding patients with characteristics which were undesirable, as a measure to control extraneous variables that could influence the dependent variable, by either minimizing or prolonging the length of stay. In this study older patients were excluded because of osteoporosis which delays the

the findings as each patient has an equal chance of being selected unlike non-probability sampling which does not allow for generalizability as patients who participate are the ones available.
healing process (Perez 1994) and consequently tended to prolong the length of hospital stay. The younger patients were also excluded because their bones on the other hand heal faster and therefore minimize the length of hospital stay. Patients with malunion of the fracture were excluded because of underlying pathophysiological problems that delay healing (Smeltzer & Bare 1996). Patients with other fractures such as proximal and distal fractures as well as comminuted fractures of tibia and fibula were also excluded as joints involved would reduce range of movement. These extraneous variables were therefore controlled so that they would not influence the dependent variable which is the length of hospital stay.

Sampling Size

The sample size was calculated following consideration of the amount of variance in the phenomenon, statistical test assumptions, significance level, power, effect size and potential attrition rate (Polit & Hungler 1995). Sensitivity of instruments at actually detecting the phenomenon differs between psychosocial and physiological studies. Psychosocial measures are regarded as less sensitive as compared to the physiological measures (Polit & Hungler 1995).

Realization of the sample size is directed by statistical assumptions, power, effect size and attrition rate. The significance level (Alpha-p value) controls the likelihood of a Type I error of rejecting the null hypothesis that there is no difference or relationship when it should be accepted. The level of significance for this study is .05 which indicates that in five out of one hundred times the result would be spurious otherwise the results would be correct 95 times out of 100 times if a replication of the study is undertaken (Burns & Grove, 1993).
The effect size is the strength of the difference or magnitude of relationship between variables (Polit & Hungler 1995). Effect size must be ascertained in order to perform a power analysis for the purpose of determining sample size (Burns & Grove 1993). Cohen (1988) in Burns and Grove (1993) indicates the numerical values for small, medium and large effects based on specific statistical procedures. Research has rated nursing studies as having small to medium effect sizes (Burns & Grove 1993). The effect size is the strength of the difference or magnitude of relationship between variables (Polit & Hungler 1995). In this study a medium effect size of 0.5 was used.

Power controls the likelihood of a Type II error, where the investigator accepts the null hypothesis when it should be rejected. The standard criteria for power is .80 and was used by the study. Power links with the statistical test by helping detect the smallest differences or relationships that exist between the variables.

Basing on Lipsey (1990) tables for estimating sample size and using the indicators of sample size namely: effect size 0.5, level of significance 0.5 and power .80, the study would have a sample size of sixty subjects. Considering the possibility of attrition, which is a threat to the study's internal validity, twenty more subjects would be added to make a total of eighty patients.

Sampling Procedure

Two sites were used for the sampling procedure, therefore steps were taken to ensure that constancy of conditions was maintained for both, by following the same procedure. The investigator determined whether a prospective subject met
all the eligibility criteria for the study by using the diagnosis list from the ward order book. The initial plan for the sampling procedure was to use probability random sampling, but because of unpredicted circumstances at the time of data collection, this had to be changed. When the feasibility of the study was determined, it was possible that the desired 80 patients using random sampling would be realised from the two hospitals. At the time of data collection, in one of the central hospitals, there was one orthopaedic consultant covering for the other two consultants, one was off-sick and the other was on leave. At the other central hospital, there was a critical shortage of health care personnel. These circumstances necessitated the introduction of a management protocol that treated most of the patients with fractured tibia and fibula as out-patients. The reduction in the number of patients who formed the population for the study, forced the investigator to resort to non-probability sampling. Non-probability does not ensure equal opportunity for the patients's selection, therefore the risk of bias is greater. Nevertheless, the inclusion and exclusion criteria helped to reduce bias. The investigator, used the convenience sampling plan, interviewed the patients as they were available observing the inclusion and exclusion criteria. A total of sixty patients were interviewed but ten were still in hospital at the time of data analysis, and were therefore excluded because their length of hospital stay could not be ascertained, leaving a sample of 50.

Variables

Operational Definitions

Polit and Hungler (1995) describe an operational definition as the definition...
of a concept or variable in terms of the operations or procedures by which it is to be measured. The independent variable in the study is patient participation in mobilization and the dependent variable is length of hospital stay.

Patient Participation in Mobilization

Patient participation in mobilization, as the independent variable, is defined as the involvement of the patient in performing exercises and self-care activities of daily living. Participation in mobilization is measured by the patient participation in mobilization questionnaire which includes knowledge of the concept of participation that the patient should possess and how much he is involved in mobilization during activities of daily living (Cahill 1995; Smeltzer & Bare 1996).

Length of Hospital Stay

Length of hospital stay, as the dependent variable is defined as the period of hospital stay from the day of admission to the day of discharge based on hospital records. The length of hospital stay is operationalized by the length of hospital stay, utilizing the patients' records to determine the actual number of days spent in hospital following management of fractured tibia and fibula.

Instruments

The instruments designed for this study are demographic data questionnaire, patient participation in mobilization questionnaire and length of hospital stay. The instruments were translated into Shona by the Department of African Languages, University of Zimbabwe. The self-report method of collecting data was used. The face to face interview lasted 30 minutes per subject as was determined when the instrument was pre-tested. This self-report method of collecting data is strong with
respect to its directness and versatility. It has good content coverage and the strongest advantage is that it yields information that would be difficult or impossible to gather by other means (Polit & Hungler 1995). Its major disadvantage is that it is difficult to ascertain whether the information given is true.

Demographic Questionnaire

The demographic questionnaire captured the personal data relevant to the study. The components are gender, age, marital status, education, occupation, religion, family income and medical insurance (see Appendix A).

Patient Participation in Mobilization Questionnaire

The patient participation in mobilization questionnaire was developed from attributes of the concept of patient participation (Cahill, 1995; Smeltzer & Bare, 1996). The instrument assessed the perception of participation in mobilization. The total number of items are sixteen. The components for assessing perception included nurse-patient relationship, information on diagnosis, exercises and possible complications, autonomy, willingness and any satisfaction on the part of the patient regarding his contribution in the caring process. The components for assessing the involvement in mobilization included, how often range-of-motion exercises, quadriceps, gluteal and triceps setting exercises were carried out, how well self-care activities of daily living were accomplished, how often the patient repositioned self in bed, confidence in getting out of bed and using assistive devices for walking without falling, pain management, complications suffered and frequency of family contact.

The distribution of scores was determined by the option alternatives (Polit
Item 1 addressed the nurse-patient relationship with four multiple choice options and scores ranging from very good, 3; good, 2; fair, 1 and poor 0. Item 2 (i) addressed knowledge of the diagnosis and had 1 score if the diagnosis was known and 0 score if unknown. Items 2 (ii) to 2 (iii) rated the information given to the patient and scores ranged from a maximum of 5; minimally adequate, 3; to a minimum of zero. Item 3 addressed consultation in care and item 4 willingness to participate. The two items have five multiple choice options and scores range from always, 4; most of the time, 3; sometimes, 2; occasionally, 1 and never 0. Item 5 addressed involvement in care, with four multiple choice options and the scoring ranges as very satisfied, 3; satisfied, 2; minimally satisfied, 1 and not satisfied 0. Items 6, 7, 8 and 9 addressed participation in exercises and have four multiple choice options and with scores ranging from never, 0; to ten times per day or hour when awake, 3. Item 10, addressed performance of activities of daily living rated as, independently, 5; minimal assistance, 3; and dependent, 0. Item 11 addressed re-positioning in bed with scores ranging from 2 hourly, 3; to never, 0. Items 12 and 13 addressed confidence in getting out of bed and when using an assistive device respectively and were rated as, completely confident, 2; fairly confident, 1; and not confident at all, 0. Item 14, addressed how soon the subject was attended to when in pain, the multiple choice options and scores ranged from, on request, 2; long after request, 1; and ignored, 0. Item 15 addressed the possible complications experienced and the scoring was 1 for a negative response and 0 for a positive response. Item 16 addressed the frequency of contact with relatives and significant others, and the multiple choice options and scores ranged from never, 0;
to daily, 3 (Tinetti 1986; Tinetti Mendes de Leon, Douchette Baker, 1993; Smeltzer & Bare 1996). The minimum possible total score for the patient participation in mobilization questionnaire was zero and the maximum possible score was 147 (see Appendix B).

Length of Hospital Stay

The length of hospital stay scale comprises of three items: day of admission, day of discharge and total number of days in hospital (Marchette & Holloman 1986). The day of admission was recorded on the day the patient was interviewed. The day of discharge was recorded by the investigator on a subsequent visit. The total number of days in hospital was recorded on a scale from one to thirty-one (see Appendix C).

The content validity of the questionnaire was reviewed by consulting a panel of clinicians composed of nurses in orthopaedic wards and physiotherapists. The questionnaire was presented to nurse experts to verify the content validity. The validity and reliability of the study was assessed during a pre-test of the instrument. Reliability is the degree of consistency with which an instrument measures the attribute it is supposed to be measuring (Burns & Grove 1993). Validity is the degree to which an instrument measures what it is supposed to be measuring (Polit & Hungler, 1995).

To test the validity and reliability of the instrument, a pilot study was carried out to pre test the instrument. Observing the inclusion and exclusion criteria, using the self-report method, data was collected and assessed for content coverage and consistency and the time it took to complete the interview. The results of the pre-
test necessitated some alterations to the instrument.

Data Collection

Following approval from the Department of Nursing Science, the Zimbabwe Medical Research Council and the Medical Superintendents of the two Central Hospitals in Zimbabwe, data was collected from the orthopaedic wards, from both male and female patients. As the patients were available, those who satisfied the inclusion criteria were requested to participate. The patients answered questions as they were read to them either in English or Shona by the investigator. The interview lasted thirty (30) minutes per patient.

The investigator maintained constancy in approach and presentation. Access to the study site by the investigator was after the morning tea break and after lunch, for those appeared to be quiet times of the orthopaedic wards. The investigator conducted a self-introduction process as the purpose of the visit was explained. The curtains were drawn around the patient and the patient was allowed as an autonomous individual, to exercise his/her right to self-determination in allowing his privacy to be interfered with, as he willingly accepted to participate. When agreeable, the patient was asked to sign the consent form (see Appendix D). On completion of the interview the investigator thanked the patient for participating and attended to any queries raised by the patient. Following the interview of each patient, the investigator returned to the ward at a later date to record the day of discharge.

Protection of Human Subjects

Following approval by the Department of Nursing Science, Medical
Research Council and study sites, an informed consent was obtained from each potential patient. Woods and Cantanzaro (1988) state that individuals have the right to self determination in choosing invasion of their privacy by accepting to participate in the study. The investigator explained the purpose of the study and gave information as to how the patient was be required to participate. In this study the patient was requested to answer questions to the best of his ability for about 30 minutes. There were no risks involved in the study and the benefit was not accrued immediately by the patient but the study generated knowledge that contributed towards length of hospital stay for adult patients with fractured tibia and fibula. The patient was assured that all information would be kept confidential and that she/he would participate freely and could withdraw at any time during the interview. Names did not appear on the questionnaires at any stage of the data collection and were number coded. The patients were not coerced or victimized to participate. As the patients indicated willingness to participate, the consent form was signed to indicate acceptance. If certain questions evoked unpleasant memories, the patient was free to refuse to answer those questions without affecting hospital care. Data was stored in a locked cabinet and was not accessible to any other person save to the investigator.

Data Analysis

According to (Polit and Hungler 1995), data analysis is the systematic organization and synthesis of data collected. Raw data was transformed for clarity and completeness by coding and editing. The edited data was stored on a computer floppy disc. Data was analyzed using the statistical package for the social
The demographic data was used to describe the sample. Measures of central tendency and dispersion were used in descriptive analysis.

The research questions that guided data analysis were: 'What is the patient’s perception of participation in mobilization'? Descriptive statistics namely frequencies, the mean and standard deviation were used to describe this question. The second research question, 'What is the length of hospital stay for hospitalized adults with a fractured tibia and fibula'? Descriptive statistics were used to describe the length of hospital stay in the form of the frequencies and the mean of the minimum and maximum of length of hospital stay. The third question, 'Is there a relationship of patient participation in mobilization on length of hospital stay, in hospitalized adults with a fractured tibia and fibula'? The third question was analyzed using inferential statistics of the Pearson (r) correlation coefficient test and simple linear regression. Pearson (r) correlation coefficient test was used to identify the strength of the relationship between patient participation in mobilization and length of hospital stay. A value of 0 indicated no strength, while +1 or -1 reflected great strength (Burns & Grove 1993). Simple linear regression showed the direction of the relationship or the line of best fit which explained the extent to which length of hospital stay changed for every unit change in patient participation in mobilization.
CHAPTER 4

RESULTS

Summary

The purpose of this study was to describe patient participation in mobilization and to identify the length of hospital stay of adult patients with fractured tibia and fibula, as well as to examine the relationship between patient participation in mobilization on the length of hospital stay. Patient participation in mobilization is the independent variable and length of hospital stay is the dependent variable. This study was carried out in two of the major referral central hospitals in Zimbabwe.

This chapter presents the results of the study as the investigator noted them. The study sought to answer three questions: 'What is the patient's perception of participation in mobilization?' The second question was, 'What is the length of hospital stay for hospitalized patients with fractured tibia and fibula?' The third question was, 'Is there a relationship between patient participation in mobilization and length of hospital stay, in hospitalized adults with fractured tibia and fibula?' The results of the data analysis include; demographic characteristics, length of hospital stay, participation in mobilization, Pearson (r) correlation coefficient test and linear regression.

Sample Demographic Characteristics

Demographic characteristics provide a profile of the patients who participated in the study. A total of 50 patients participated, 37 were male (74%) and 13 were female (26%). The age of the patients ranged between 18 and 45 years.
Table 1 shows the distribution of age in groups as follows, 18-19 years (4%), 20-24 years (16%), 25-29 years (26%), 30-34 years (16%), 35-39 years (10%) and 40-45 years (28%). The mean age was 31.960 and standard deviation 8.492. The age range was 27.000. The marital status of the patients indicated that 64% were married, 20% were single, 10% were divorced, 4% were widowed and 2% were separated.

Table 2 shows the educational level of the patients. Six percent had no schooling, 34% had attended primary education, 54% had attended secondary education and none had attended college or university education. The occupational pattern depicted that 44% were unskilled workers, 22% were skilled workers, 12% were professional workers while 22% were unemployed. The majority of the patients (78%), were Christians, 18% were Traditionalists, 2% was Moslem and another 2% were not religious. The income of patients showed that 30% earned below $400.00 per month and 40% earned between $400.00 and $1 500.00, 8% earned between $1 600 and $2 500.00, 18% earned above $2 500.00 whilst others, 4% did not have a monthly income. A total and 88% of the patients had no medical insurance and were subsequently not covered, whilst 12% were medically insured and had their hospital stay covered.

Length of Hospital Stay

As indicated in Table 3, four percent stayed for a minimum of three to four days and another 4% stayed for a maximum of thirty days. The mean of total days stayed was 16.4206 with a range of 27.000.
TABLE 1

Demographic Characteristics

N = 50

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>Male</td>
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<td>74</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>26</td>
</tr>
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<table>
<thead>
<tr>
<th>Age in (years)</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-19</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>20-24</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>25-29</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>30-34</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>35-39</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>40-45</td>
<td>14</td>
<td>28</td>
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<table>
<thead>
<tr>
<th>Marital Status</th>
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<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Married</td>
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<td>64</td>
</tr>
<tr>
<td>Single</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Divorced</td>
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<td>4</td>
</tr>
<tr>
<td>Separated</td>
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**TABLE 2**

**Demographic Characteristics 2**

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<thead>
<tr>
<th>Education</th>
<th>Number</th>
<th>Percentage</th>
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</thead>
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<td>No schooling</td>
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<td>Primary Education</td>
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<td>34</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>27</td>
<td>54</td>
</tr>
<tr>
<td>College/ University</td>
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<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unskilled</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Skilled</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Professional</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>22</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Income per month</th>
<th>Number</th>
<th>Percentage</th>
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<tr>
<td>Below $400.00</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>$400.00-$1 500.00</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>$1 600.00-$2 500.00</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Above $2 500.00</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian</td>
<td>39</td>
<td>78</td>
</tr>
<tr>
<td>Traditionalist</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Moslem</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical Insurance</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
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<tr>
<td>Insured</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Uninsured</td>
<td>44</td>
<td>88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical cover</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insured</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Uninsured</td>
<td>44</td>
<td>88</td>
</tr>
</tbody>
</table>
TABLE 3

Length of Hospital Stay

N = 50

<table>
<thead>
<tr>
<th>DAYS</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>5 - 9</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>10-14</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>15-19</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>20-24</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>25-30</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>31-34</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Patient Participation In Mobilization

Participation in mobilization is the independent variable, and the study sought to identify perceptions of patient participation in mobilization assuming that the patients had the foundational knowledge. Table 4 presents a distribution of scores of participation in mobilization addressing perception of the nurse patient relationship and the information given on exercises.

Sixty-two percent rated their relationship with nurses as being good, 24% very good, 12% fair whilst 2% rated it as poor. Reviewing the knowledge of diagnosis, 92% knew their diagnosis whilst 8% did not know. Rating the information given on exercises which encompassed; movement of toes, range-of-motion exercises for all unaffected joints, gluteal, quadriceps and arm setting exercises, 68% said that it was inadequate, 26% adequate and 6% stated that it was minimally adequate. Rating the information on selfcare activities, which included bathing, dressing, meals, elimination, repositioning self in bed, keeping the plaster dry and changing position using assistive devices, 54% said that it was inadequate, 44% adequate and 2% stated that it was minimally adequate. Rating the information given on possible complications and recreational activities which included, tight plaster / loss of traction, swelling of the affected limb, tingling sensation, pressure ulcer /pin site infection and recreation, 86% stated that it was inadequate and 14% stated that it was adequate.
TABLE 4

Participation In Mobilization Distribution Of Scores

(Perception) 1

N = 50

<table>
<thead>
<tr>
<th>Nurse patient relationship</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td>Very Good</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Fair</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge of diagnosis</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>46</td>
<td>92</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information on exercises</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>Adequate</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Minimally adequate</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information on self-care activities</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>27</td>
<td>54</td>
</tr>
<tr>
<td>Adequate</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Minimally adequate</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information on possible complications</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>43</td>
<td>86</td>
</tr>
<tr>
<td>Adequate</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>
Table 5 shows the reported understanding of the concept of participation by the patients. A majority of 28% stated that they were consulted in the care they received most of the time, 28% were sometimes involved, 18% were always involved, 14% were occasionally involved and 12% were never involved. Forty percent sometimes managed to carry out exercises or activities of daily living, 28% were willing to carry out exercises most of the time, 20% occasionally carried out the exercises, 2% never carried out the exercises whilst 10% were always willing to carry out the exercises. Fifty-four percent were satisfied with their involvement in care, 30% were minimally satisfied, 10% were very satisfied whilst 6% were not satisfied.

Table 6 shows the reported performance of mobilization on each variable. The performance of range-of-motion exercises of joints not affected had the following outcome; 54% sometimes performed the exercises, 22% occasionally performed the exercises, 14% never performed the exercises whilst 10% performed the exercises 10 times a day. Seventy-six percent never performed gluteal setting exercises, 18% sometimes performed gluteal setting exercises, 2% performed 10 times every hour and another 4% occasionally performed gluteal setting exercises. Sixty-six percent never performed quadriceps setting exercises, 14% sometimes performed the exercises, 10% performed exercises, 10 times every hour whilst 10% occasionally performed quadriceps setting exercises. Fifty-two never performed arm strengthening exercises, 28% sometimes performed the exercises, 12% performed exercises 10 times every hour whilst another 8% occasionally performed.
TABLE 5

Participation In Mobilization Distribution Of Scores

(Perception) 2

N = 50

<table>
<thead>
<tr>
<th>Perception</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation in care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Sometimes</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Always</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Occasionally</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Never</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

Willingness to carry out exercises

<table>
<thead>
<tr>
<th>Perception</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Most of the time</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Occasionally</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Never</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Always</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Satisfaction with involvement in care

<table>
<thead>
<tr>
<th>Perception</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
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<td>54</td>
</tr>
<tr>
<td>Minimally satisfied</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Not satisfied</td>
<td>3</td>
<td>6</td>
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</table>
TABLE 6

Participation In Mobilization Distribution of scores

(Participation) 1

N = 50

<table>
<thead>
<tr>
<th>Performance of range-of-motion exercises</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>27</td>
<td>54</td>
</tr>
<tr>
<td>Occasionally</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Never</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>10 times a day</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance of gluteal setting exercises</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>38</td>
<td>76</td>
</tr>
<tr>
<td>Sometimes</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Occasionally</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>10 times every hour</td>
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<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance of thigh setting exercises</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
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<td>66</td>
</tr>
<tr>
<td>Sometimes</td>
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<td>14</td>
</tr>
<tr>
<td>10 times every hour</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Occasionally</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance of arm strengthening exercises</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>26</td>
</tr>
<tr>
<td>Sometimes</td>
<td>14</td>
</tr>
<tr>
<td>10 times every hour</td>
<td>6</td>
</tr>
<tr>
<td>Occasionally</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
Table 7 shows a rating of the performance of selfcare activities of daily living, 94% were minimally dependent when bathing and 6% could bath independently. Ninety-eight percent could dress themselves independently while 2% were minimally dependent and 98% were independent regarding feeding whilst 2% were minimally dependent. Ninety-four percent were minimally dependent on elimination, whilst 6% were independent. Regarding change of position, 46% sometimes changed position, 24% changed position 2 hourly another 24% changed position occasionally whilst 6% never changed position. Sixty-four percent were fairly confident that they will not fall, when getting out of bed and when using assistive devices for walking, 28% said they were fairly confident whilst 8% stated that they were not at all confident.

Table 8 shows a rating of when attention for pain relief was given, the possible complications suffered and the frequency of family contact. When in pain, 70% stated that they were attended to on request, 26% were attended to long after request and 4% were ignored. Rating the experience of possible complications that the patients suffered, including; tight plaster, swollen limb, tingling sensations and pressure ulcer, 85.5% did not experience any complications whilst 20% had a tight plaster, another 16% experienced tingling sensations, 6% had a swollen limb whilst 6% had a pressure ulcer. Reviewing the frequency of contact with family or significant others, 74% of the patients had visitors daily, 14% had visitors occasionally, 8% never had visitors whilst another 4% sometimes had visitors.
TABLE 7  
Participation In Mobilization Distribution Of scores (Participation) 2

N = 50

<table>
<thead>
<tr>
<th>Performance of activities of daily living-bathing</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimally dependent</td>
<td>47</td>
<td>94</td>
</tr>
<tr>
<td>Independently</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance of activities of daily living-dressing</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independently</td>
<td>49</td>
<td>98</td>
</tr>
<tr>
<td>Minimally dependent</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance of activities of daily living-feeding</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimally dependent</td>
<td>47</td>
<td>94</td>
</tr>
<tr>
<td>Independently</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change of position</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes</td>
<td>23</td>
<td>46</td>
</tr>
<tr>
<td>2 hourly</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Occasionally</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Never</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Confidence when getting out of bed and when using assistive devices</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairly confident</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>Completely confident</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>Not at all confidence</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>
TABLE 8

Participation In Mobilization Distribution Of Scores (Participation) 3

N = 50

<table>
<thead>
<tr>
<th>Performance</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention received when in pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On request</td>
<td>35</td>
<td>70</td>
</tr>
<tr>
<td>Long after request</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Ignored</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experiences of possible complications</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No complications suffered</td>
<td>43</td>
<td>85.5</td>
</tr>
<tr>
<td>Complications suffered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tight plaster</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Swollen limb</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Tingling sensation</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Pressure ulcer</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of visits received</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>37</td>
<td>74</td>
</tr>
<tr>
<td>Occasionally</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Never</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 9 shows the information that was rated as inadequate which was on exercises, selfcare activities and the possible complications. Table 10 shows areas of participation in mobilization rated lowly which were gluteal setting exercises and quadriceps (thigh) setting exercises. Table 11 shows total participation in mobilization scores. The total score for participation in mobilization was 147 points. The minimum score obtained was 36 and the maximum score obtained was 134. Most of the patients scored between 50 - 59 points. The mean score was 73.5. The majority of the patients, constituting 58%, scored below the mean score, whilst 42% scored above the mean score.

Relationship of the Variables

To establish whether there was a relationship between patient participation in mobilization and length of hospital stay of adult patients with fractured tibia and fibula, a Pearson correlation analysis was done, and the result was \( r = 0.0028, \ p > 0.5 \) indicating that there was no significant relationship between patient participation in mobilization and length of hospital stay. Table 12 shows the correlation analysis. A regression analysis was done and was non significant showing that participation in mobilization had no effect on length of hospital stay. Table 13 shows the regression analysis.

Summary of Results

The demographic characteristics showed that 74% of the patients under study were males and 26% females. The mean of the age distribution was 31.960. Sixty-four percent were married and constituted the majority. Fifty-four percent attained secondary education and no one attended college or university education.
TABLE 9

The Information Which The Majority Perceived As Inadequate.

N = 50

<table>
<thead>
<tr>
<th>Information</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on exercises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inadequate</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>minimally adequate</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>adequate</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Information on selfcare activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inadequate</td>
<td>27</td>
<td>54</td>
</tr>
<tr>
<td>adequate</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>minimally adequate</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Information on possible complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inadequate</td>
<td>43</td>
<td>86</td>
</tr>
<tr>
<td>adequate</td>
<td>7</td>
<td>14</td>
</tr>
</tbody>
</table>
TABLE 10

Areas Of Participation In Mobilization Which The Majority Stated They Never Practised.

N = 50

<table>
<thead>
<tr>
<th>Performance</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gluteal setting exercises</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>never</td>
<td>38</td>
<td>76</td>
</tr>
<tr>
<td>sometimes</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>10 times every hour</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>occasionally</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Quadriceps (thigh) setting exercises</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>never</td>
<td>33</td>
<td>66</td>
</tr>
<tr>
<td>10 times every hour</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>occasionally</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>sometimes</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
TABLE 11

Participation In Mobilization Total Scores

N = 50

<table>
<thead>
<tr>
<th>Scores</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>36-39</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>40-49</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>50-59</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>60-69</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>70-79</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>80-89</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>90-99</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>100-109</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>110-119</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>120-129</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>130-139</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
TABLE 12
PEARSON CORRELATION MATRIX ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>1.0000</td>
<td>.0028</td>
</tr>
<tr>
<td>X</td>
<td>.0028</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

*P = .05
N = 50

Y (Participation in mobilization)
X (Length of hospital stay)
## TABLE 13

**REGRESSION ANALYSIS OF LENGTH OF HOSPITAL STAY:**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>B</th>
<th>SE B</th>
<th>BETA</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>8.297503E-04</td>
<td>.042990</td>
<td>.002786</td>
</tr>
<tr>
<td>(CONSTANT)</td>
<td>16.359013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P = .05

N = 50

(Y) Participation in mobilization

(X) Length of hospital stay
Forty four percent of the patients were unskilled workers whilst 22% were unemployed. A majority of 40% earned from below $400.00 to $1 500.00 per month. Eighty percent of the patients were Christians and 10% had medical insurance which covered their hospital stay.

Reviewing perception of participation in mobilization, 86% percent of the patients stated that their relationship with the nurses was between good and very good, and 92% knew their diagnosis. The information given on exercises was rated as; 68% inadequate, 26% adequate and 6% minimally adequate. The information given on selfcare was rated as; 54% inadequate, 44% adequate and 2% minimally adequate. The information given on complications was rated as; 86% inadequate and 14% adequate. The majority (28%) reported that, they were consulted in the care they received most of the time and another 28% was sometimes consulted. A majority (40%) sometimes managed to willingly carry out exercises and activities of daily living and 54% were satisfied with their involvement in care.

A majority (54%) sometimes performed range of motion exercises of joints not in cast, 76% never performed gluteal setting exercises, 66% never performed thigh setting exercises and 52% never performed arm strengthening exercises. Rating the performance of selfcare activities of daily living, 94% were minimally dependent on bathing, 98% could dress and feed themselves independently and 94% were minimally dependent on the nurses for elimination. When changing position, 46% changed position sometimes and 64% were fairly confident that they would not fall both when getting out of bed and when using assistive devices. Seventy percent stated that they received attention on request, when they needed pain relief.
Eight - six percent did not experience any complications which included, a tight plaster, a swollen limb, tingling sensations and development of a pressure ulcer.

Seventy - four percent of the patients under study received visitors daily.

To establish whether there was a relationship of patient participation in mobilization on length of hospital stay, a Pearson correlation (r) coefficient test was computed. The result was (r = .0028, p > .05) indicating that there is no significant relationship.
DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to describe patient participation in mobilization of adult patients with fractured tibia and fibula, ascertain the length of hospital stay and to examine the relationship of patient participation in mobilization on length of hospital stay. Roy's Adaptation model provided the foundation for this study. The study sought to answer the following questions: firstly, 'what is the patient's perception of participation in mobilization?' secondly, 'what is the length of hospital stay for hospitalized patients with fractured tibia and fibula?' and thirdly 'is there a relationship of patient participation in mobilization on length of hospital stay, in hospitalized adults with fractured tibia and fibula.'

Summary of findings

A sample of 50 patients were interviewed, 37 were male and 13 were female. The average age for the patients was 31 years. Sixty-four percent were married and constituted the majority. Fifty percent attained secondary education. Forty-four percent of the patients were unskilled workers whilst 22% were unemployed. A majority of 70% earned below $400.00 and between $400.00 and $1,500.00. Twelve percent had medical insurance which covered their hospital stay costs. The picture revealed by employment, income and medical cover depicted that the majority of the patients were of a low socio-economic status. Eighty-eight percent of the patients were Christians.
The study findings showed that the average length of hospital stay was 16 days. The shared majority of three groups of ten patients for 5-9 days, 10-14 days and 15-19 days.

The patients were asked to respond to questions eliciting their perception of participation in mobilization. A majority of 86% stated that the relationship was between good and very good. Sixty eight percent rated the information given on exercises, selfcare and possible complications as inadequate and this might have influenced the performance of gluteal and quadriceps setting exercises, where a majority of 72% never performed the exercises. The total score of patient participation was 147, with 134 as the highest score and 36 as the lowest score attained by the patients. The majority of the patients, constituting 58% scored below the mean (73.5) whilst 42% scored above the mean. Pearson correlation analysis showed that there was no relationship of patient participation in mobilization on length of hospital stay ($r = .0028, p = > .05$). Regression analysis showed that participation in mobilization had no effect on length of hospital stay.

Discussion of findings

Demographic Characteristics

The majority (26%) of the patients who had a fractured tibia and fibula were aged between the ages (25-29) years. The mean age of the patients was 31 years. This age group is in middle adulthood, active (Smeltzer & Bare, 1996) and prone to injury. Seventy percent of the patients were male. It would appear males were more susceptible to fractured tibia and fibula than females. If preventive health education was to be mounted, males of this age group would benefit the most.
Marital status, education and religion did not seem to affect length of hospital stay.

The demographic characteristics showed that the majority of the patients were of a low socio-economic status, as revealed by the fact that only 12% had their length of hospital stay costs covered by medical insurance. Literature review showed that those who earned below $400.00 per month had their costs covered by the Government. This cost the Government a lot of money. These results confirm the need for Government to employ cost effective measures in providing care as identified by the World Development Report, (1993) hence the thrust of this study was to address length of hospital stay.

Length of Hospital Stay

In the study, the mean of the length of hospital stay was 16 days. Literature reviewed, revealed that the mean length of hospital stay at one of the central hospitals in Zimbabwe was 21 days. Although the findings showed a mean of 16 days, 44% stayed for less days than the mean, demonstrating that it might be possible to reduce length of hospital stay.

Eighty six percent of the patients suffered no complications and that might have helped reduce length of hospital stay. Patients with complications stay longer in hospital (Vegas, Jodra & Gracia, 1993).

In the study, 70% of the patients stated that they were attended to on request when they were in pain. Prolonged length of hospital stay could be caused by negligence in pain management (Devine, 1993). The findings suggest that the promptness in attending to patients in pain could have helped reduce length of hospital stay.
Patient Participation in Mobilization

The findings on participation in mobilization revealed that 86% of the patients stated that, their relationship with nurses was between good and very good showing that a nurse-patient relationship existed. Fifty six percent of the patients reported that they were consulted in the care they were involved in. A majority (40%) was willing to carry out exercises and activities of daily living. Although 92% knew their diagnosis, a gap in knowledge existed, given that 68% reported that information on exercises, selfcare activities and possible complications was inadequate. This narrowing of the appropriate information between the nurse and the patient is one of the defining attributes of the concept of patient participation as stated by (Cahill, 1995). It would appear that the inadequate information might have influenced the lowly reported performance of gluteal and quadriceps exercises. Chally, (1992) stated that providing information empowers an individual and (Devine & Cook, 1983) showed that psychoeducational interventions reduced hospital stay by 1.25 days post surgical hospitalization. On the other hand, the good performance in the range-of-motion exercises of joints outside the cast and arm strengthening exercises might have been influenced by movement required in performing activities of daily living and by changing position (Smelter & Bare 1996).

The majority (64%) of the patients reported that they were satisfied with their involvement in care, which is one of the consequences of the of the concept of patient participation (Cahill, 1995). Seventy percent of the patients received daily visits from their families and significant others which all might have contributed
towards positive care outcomes. This satisfaction with participation in mobilization might have provided the achievement of psychosocial equilibrium (Ignatavicius, 1991).

The reported experience of selfcare activities of daily living by patients with fractured tibia and fibula was very high, given that 98% could dress and feed themselves independently. Ninety four percent were minimally dependent on bathing and elimination, and 70% changed their position. Although inadequate information was given on selfcare activities, patients with fractured tibia and fibula tended to be mentally alert and physically capable except that they are initially immobile. Given that these patients require minimal assistance, nurses should not be complacent in giving adequate information and in supervising mobility.

Fifty - eight percent scored below the mean (73.5) and 42% scored above the mean for participation in mobilization. Only 28% were confident that they would not fall, when getting out of bed and when using assistive devices for walking. Sixty percent were fairly confident and 8% reported that they were not at all confident that they would not fall. The medical - surgical nurse's expertise in judging the individual patient's readiness for regaining independence for mobilization (Roper, Logan and Tierney 1978) could increase the patient's confidence.

The Relationship of Patient Participation in Mobilization on Length of Hospital Stay

The Pearson correlation analysis result was ($r = .0028$, $p > .05$), showing that there was no significant relationship of patient participation in mobilization on length of hospital stay. The Regression analysis was non significant ($p > .05$),
indicating that participation in mobilization had no effect on length of hospital stay. Patient participation in mobilization has become a widely accepted tenet in contemporary nursing practice, as it results in health promoting behaviours. These findings which are non significant, might seem to support (Cahill, 1995) who suggested that owing to the multifactorial nature and complexity of patient participation in mobilization within the context of nursing practice, empirical referents are difficult to define.

Theoretical Model

Roy's Adaptation model provided the conceptual foundation for this study. According to the Roy's Adaptation model of nursing, persons are biopsychosocial beings in constant interaction with a changing environment. Roy's concepts that related to this study were environmental stimuli, adaptation and health. The focal stimulus in the study is the fractured tibia and fibula. Adaptation is patient participation in mobilization, in that the energy released as a result of adaptive responses to environmental stimuli, should enable the patient to achieve mobility. Health is the length of hospital stay in that, the ability of the patient to function determines his stay. In this study, the scores on participation in mobilization showed a majority (58%) scoring below the mean (73.5). Patients lacked information on exercises, selfcare activities and possible complications and that might have influenced their performance of exercises. According to Roy, this gap in knowledge would cause maladaptation and in turn might cause a delay in the achievement of mobility and consequently prolong the patient's hospital stay. The holistic approach to care advocated by this model enabled the review of promptness in pain
management, any possible complications suffered and the frequency of family
contact, as was related to health, which was the length of hospital stay. The positive
activity of the patients might have assisted the achievement of integrity resulting in
reduced length of hospital stay.

Implications

The findings revealed the low socio-economic status of the patients,
meaning that the Government had to cover the length of hospital stay costs of the
majority who were unemployed and earned below $400.00. There is need for
medical-surgical nurses to provide adequate information on exercises, self-care
activities and possible complications to patients with fractured tibia and fibula.
Although there was no significant relationship of patient participation in
mobilization on length of hospital stay, the results of the study provide information
that could improve the quality and cost effectiveness of care. Narrowing the gap in
knowledge, might improve the patient's competence in performing exercises. This
might also enable the patient to control the management of his own care and
perhaps shorten the length of hospital stay and reduce costs (Marchette &
Holloman, 1986). Perhaps a need arises to encourage nurse led research on cost
effective care and quality issues. Reducing length of hospital stay is a cost effective
intervention (Engleman, 1996). This study should enable the generation of future
research to enhance the understanding of patient participation in mobilization as it
influences other outcomes of care.

Recommendations

1. The nurse should strengthen the knowledge of the patient and by so doing
she facilitates the acquisition of the skill of patient participation by the patient.

2. The study lays a foundation for the development of a nursing care model for the orthopaedic patient; participation in mobilization.

3. The establishment of cost effective measures through patient participation in mobilization to reduce length of hospital stay.

4. This study could be used as a pilot project for conducting further research studies with larger sample sizes for generalizability.

Limitations

1. A change of sampling plan from probability to non-probability would cause the non-generalizability of the study findings.

2. The instrument used sought recall, reported understanding and reported performance which might have attracted some socially acceptable responses.

3. The utilization of an instrument which did not have psychometric measures.

Summary

This chapter presented and analyzed the major findings, in order to answer research questions on patient participation in mobilization, determine length of hospital stay and ascertain the relationship of patient participation in mobilization on length of hospital stay. The study included 50 patients, non-randomly selected from two referral Central Hospitals. The patients were aged between 18 and 45 years, mostly males and mostly of a low socio-economic status. Roy's conceptual model
was chosen to guide the study. Data was analyzed using descriptive statistics, Pearson correlation analysis and regression analysis.

Currently length of hospital stay is an area of primary concern to medical-surgical nursing as it determines the financial costs and the potential complications the patient may develop (Engleman, 1996). The average length of hospital stay in the study was 16 days.

Patient participation in mobilization showed that, 86% of the patients reported that their relationship with nurses was between good and very good revealing that a nurse patient relationship existed. The majority (56%) of the patients were consulted in the care they received. Forty percent were willing to carry out exercises and selfcare activities. Sixty four percent were satisfied with the care they received. Although 92% knew their diagnosis, a gap in perception existed, given that the majority (68%) reported that information on exercises, selfcare activities and possible complications was inadequate. This lack of information might have influenced performance of exercises. A majority (58%) scored below the mean (73.5) in participation in mobilization scores.

The Pearson correlation analysis results indicated that, there was no significant relationship of patient participation in mobilization on length of hospital stay ($r = .0028, p > .05$). The regression analysis was non significant, ($p = > .05$). Based on the findings, medical-surgical nurses need to strengthen their patients' information on exercises, selfcare activities and possible complications as well as adequately supervise the mobilization of patients with fractured tibia and fibula.

Although there was no significant relationship of patient participation in
mobilization on length of hospital stay, this study provided information that could improve the care given to orthopaedic patients.
REFERENCES


Demographic Data Questionnaire:

Ndichakubvunzai mibvunzo iri pamusoro penyu. Munokumbirwa kupindura mibvunzo iyi nekugona kwenyu kwese.

1. Muri murume kana kuti mukadzi?  
   a) Murume  
   b) Mukadzi

2. Muna makore mangani ekuwarwa? 

3. Makaroorwa kana kuroora here?  
   a) Ndakaroorwa/ndakaroora  
   b) Handina kuroora kana kuroorwa  
   c) Ndakafirwa  
   d) Takarambana  
   e) Takaparadzana

4. Makadzidza/makafunda zvakadini?  
   a) Handina kumboenda kuchikoro.  
   b) Ndakagumira kupuraimari.  
   c) Ndakagumira kusekondari  
   d) Kukoreji/Yunivhesiti

5. Munoita basa rei?  
   a) Remushandi asina basa raakadzidzira.  
   b) Remushandi akadzidzira basa  
   c) Remunhu akaita kosi yaro  
   d) Rimwe

6. Chitendero chenyu ndechipi?  
   a) Chikirisitu  
   b) Chimuzirimu  
   c) Chivanhu  
   d) Chimwe

7. Mhuri yenyu inotambira marii pamwechete pamwedzi?  
   a) iri pasi pe$400.00  
   b) $400.00-$1 500  
   c) $1 600.00-$1 500.00  
   d) inopfuura$2 500.00  
   e) Rimwe
8. Pane kambani here yamunobhadhara mari inomirira kurapiwa kwenyu?
   Hongu/ Kwete
   a) Kana muchiti hongu, kambani yacho inonzi ani?
   b) Mari iyi inokwanisa kubhadhara kugara kwenyu muchipatara here?
APPENDIX B (1)

KUSHANDA PAMWE NEVARAPI PAKURAPIWA KWENYU.

Ndichakubvunzai mibvunzo inoenderana nekupinzva kwenyu munyaya dzekurapiwa kwenyu. Munokumbirwa kuti mupindure mibvunzo yacho nekugona kwenyu kwose.

Maonero enyu kuva kwenyu mukati mezvekurapiwa kwenyu

1. Mungatsanangura sei hukama hwenyu navana mukoti?
   a) hwakanaka zvikuru
   b) hwakanaka
   c) huri pakati nepakati
   d) hwakashata

2. (i) Makaongororwa mukaonekwa kuti makakuvara zvakadini?
   a) ___________________________
   b) handizivi

(ii) Mungatsanangura sei ruzivo rwamakapiwa nezvekurapiwa kwenyu?

   Rwakakwana     Rwakakwana zvishoma     Haruna kukwana

   a) kufambiswa kwezvigunwe muchinzwu kuti zvinopisa kana kutonhora zvakadini
   b) kufambiswa- fambiswa kwemajoini asina kukuvara
   c) kuomesa nekuregedzera masuro dzamunogara nadzo
   d) kufambiswa-fambiswa kwenyama dzepachidzwa
   e) kufambiswa-fambiswa kwenyama dzemaoko
   f) mabasa ekuzvichengetedza
      (i) kugeza
      (ii) kupfeka
      (iii) kudya
      (iv) kuita tswina nekurasa mvura
   g) kuzvisandura pamubhedha
   h) kuchengetedza purasita yakaoma/ kuchengetedza tirakisheni
   i) kuchinja nzvimbo/ pamwe muchibatsirwa necheni kana furema dzakagadzirira basa iroro.
   j) Mungatsanangura sei ruzivo rwamakapiwa nezve-?
a) purasita inobata/ tirakisheni yakaregedzera
b) kuzvimba kwegumbo
c) chiveve
d) ronza rinomuka nekutsitsirirwa/ utachiwana pakange pane pini
e) kuita maekisesaizi anozorodza fungwa nekusimbisa miviri

3. Munopinzwa mukati mezvekurapiwa kwenyu nguva dzakawanda zvakadini?
   a) nguva dzose
   b) nguva zhinji
c) dzimwe nguva
d) nenguva dziri kure
e) Handimbopinzva mukati mazvo

4. Kangani muchikwanisa kuita maekisesaizi nekuzviitira mabasa ekuzvichengetedza?
   a) nguva dzose
   b) nguva zhinji
c) dzimwe nguva
d) nenguva dzirikure
e) Handimbokwanisa

5. Munofadzwa here nekupinzwa kwenyu mumabasa ekuzvichengetedza nekurapiwa kwenyu?
   a) Ndinofadzwa zvikuru
   b) Ndinofadzwa
   c) Ndinofadzwa zvishoma
d) Handifadzwi

Kuva mukati mekuitwa kwamaekisesaizi nekurapiwa kwenu.

6. Kangani muchiita maekisesaizi anofambisa- fambisa majoini asiri mupurasita?
   a) kagumi pazuva
   b) dzimwe nguva
c) nenguva dziri kure
d) Handimboita

7. Kangani muchiita maekisesaizi anogadziridza mamasuro amunogarira?
   a) kagumi paawa yega kana ndakamuka
   b) dzimwe nguva
c) nguva dziri kure
d) Handimboita
8. Kangani muchiita maekisesaizi anogadziridza mamasuro epachidzwa?
   a) kagumi paawa yega kana ndakamuka  
   b) dzimwe nguva  
   c) nguva dziri kure  
   d) Handimboita

9. Kangani muchiita maekisesaizi anosimbisa maoko?
   a) kagumi paawa yega kana ndakamuka  
   b) dzimwe nguva  
   c) nguva dziri kure  
   d) Handimboita

10. Munogona zvakadini kuita zvinotevera zvinoenderana nemararamiro emazuva ese?

<table>
<thead>
<tr>
<th>Ndisina</th>
<th>Ndine rubatsiro</th>
<th>Ndinerubatsiro</th>
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</thead>
<tbody>
<tr>
<td>rubatsiro</td>
<td>rushoma</td>
<td></td>
</tr>
</tbody>
</table>
   a) kugeza  
   b) kupfeka  
   c) kudya  
   d) kuita tsvin a nekurasa mvura

11. Munozvishandura pamubhedha nguva yakawanda zvakadini?

   a) pamaawa maviri ega-ega  
   b) dzimwe nguva  
   c) nenguva dziri kure  
   d) handimbozvisanduri

12. Munovimba zvakadini kuti hamudonhi kana muchiburuka pamubhedha?

   a) Ndinovimba zvikuru  
   b) Ndinovimba zvishoma  
   c) Handivimbi zvachose

13. Munovimba zvakadini kuti hamudonhi kana muchishandisa zvinhu zvakagadzirirwa kuti zvikubatsirei pakufamba?

   a) Ndinovimba zvikuru  
   b) Ndinovimba zvishoma  
   c) Handivimbi zvachose
14. Kana muchirwadziwa pane vanouya kuzokubatsirai here?
   a) ndichangokumbira
   b) kwaperenga nguva refu ndakumbira
   c) hapana anombouya

15. Makambonzwa chimwe chezvinotevera here?
   a) purasita inobata
   b) kuzvimba kwegumborakakuvuva
   c) chiveve
   d) ronda rinomuka nekutsitsirwa/ utachiwana pakange pane pini

16. Kangani muchisangana nemhuri yenyu kana vamwe vanokosha kwamuri?
   a) zuva rega-rega
   b) dzimwe nguva
   c) nenguva dziri kure
   d) handisati ndambosangana navo
APPENDIX A.

Demographic Data Questionnaire:-

I am going to ask questions about yourself. Please answer to the best of your ability.

1) Gender: a) Male □
   b) Female □

2) How old are you? __________

3) Are you married?
   a) Married □
   b) Single □
   c) Widowed □
   d) Divorced □
   e) Separated □

4) How far did you go with education?
   a) Did not attend □
   b) Up to primary level □
   c) Up to secondary level □
   d) College/University □

5) What is your occupation?
   a) Unskilled worker □
   b) Skilled worker □
   c) Professional worker □
   d) Other □
6) What is your religion?
   a) Christian □
   b) Moslem □
   c) Traditionalist □
   d) Other □

7) What is your total family income?
   a) Below $400.00 per month □
   b) $400.00 - $1 500.00 □
   c) $1 600.00 - $2 500.00 □
   d) Above $2 500.00 □
   e) Other □

8) Do you have Medical Insurance? YES □ NO □
   a) If yes, what is the name of your Medical Insurance company? __________
   b) Will your Medical Insurance cover hospital stay? YES □ NO □
PATIENT - PARTICIPATION IN MOBILIZATION QUESTIONNAIRE

I am going to ask you questions about your involvement in care. Please answer the questions to the best of your ability, by selecting the best option which applies to you.

Perception of Participation

1) How would you rate your relationship with the nurses?
   a) Very good □
   b) Good □
   c) Fair □
   d) Poor □

2) (i) What is your diagnosis? a) ______
   b) Unknown □

   (ii) How would you rate the information you were given about your treatment?

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Adequate</th>
<th>Minimally Adequate</th>
<th>Inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement of toes temperature sensation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range-of-motion exercise for all unaffected joints</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinching and releasing the muscle you sit on</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thigh-setting exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arm-setting exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate</td>
<td>Minimally Adequate</td>
<td>Inadequate</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>----------</td>
<td>--------------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>f) Self-care activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Bathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii) Dressing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii) Meals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv) Elimination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>g) Repositioning self in bed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>h) Keeping plaster of paris dry/ maintaining traction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>i) Position change/ using assistive devices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

iii) How would you rate the information given to you about the following

<table>
<thead>
<tr>
<th></th>
<th>Adequate</th>
<th>Minimally Adequate</th>
<th>Inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Tight plaster/ loss of traction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Swelling of limb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Tingling sensation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Pressure ulcer/ pin site infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Recreation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3) How often are you involved in the care you receive?
   a) Always    □
   b) Most of the time    □
   c) Sometimes    □
   d) Occasionally    □
   e) Never    □

4) How often do you manage to carry out exercise or activities of daily living?
   a) Always    □
   b) Most of the time    □
   c) Sometimes    □
   d) Occasionally    □
   e) Never    □

5) Are you satisfied with your involvement in caring activities?
   a) Very satisfied    □
   b) Satisfied    □
   c) Minimally satisfied    □
   d) Not satisfied    □
Participation in mobilization

6) How often do you perform range-of-motion exercises of joints not in cast?
   a) 10 times a day □
   b) Sometimes □
   c) Occasionally □
   d) Never □

7) How often do you perform muscle setting exercises of the muscle you sit on?
   a) 10 times every hour when awake □
   b) Sometimes □
   c) Occasionally □
   d) Never □

8) How often do you perform thigh muscle setting exercise?
   a) 10 times every hour when awake □
   b) Sometimes □
   c) Occasionally □
   d) Never □

9) How often do you perform arm strengthening exercise?
   a) 10 times every hour when awake □
   b) Sometimes □
   c) Occasionally □
   d) Never □
10) How well do you perform the following activities of daily living?

<table>
<thead>
<tr>
<th></th>
<th>Independently</th>
<th>Minimal Assistance</th>
<th>Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Bathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Dressing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Feeding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Elimination</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11) How often do you re-position yourself in bed?

- a) 2 hourly
- b) Sometimes
- c) Occasionally
- d) Never

12) How confident are you that you will not fall when getting out of bed?

- a) Completely confident
- b) Fairly confident
- c) Not at all confident

13) How confident are you that you will not fall when using an assistive device?

- a) Completely confident
- b) Fairly confident
- c) Not at all confident
14) If in pain are you attended to:

a) On request

b) Long after request

c) Ignored

15) Have you experienced any of the following?

<table>
<thead>
<tr>
<th>Condition</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tight plaster</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Swelling of affected limb</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Tingling sensation</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Pressure ulcer/ pin site infection</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

16) How often are you in contact with your family or significant others?

a) Daily

b) Sometimes

c) Occasionally

d) Never
APPENDIX C

LENGTH OF HOSPITAL STAY

Length of stay

a) Date of admission

b) Date of discharge

c) Total number of stay in hospital
University of Zimbabwe
Faculty of Medicine
Department of Nursing Science

Informed Consent

My name is Mrs P Makoni and I am a Masters in Nursing Science student at the University of Zimbabwe. Permission has been granted for me to conduct this study. The purpose of this study is to examine the relationship between patient participation in mobilization and length of hospital stay. It is hoped that the concept of patient participation in mobilization will reduce length of hospital stay with concomitant reduction of cost, and improvement in the quality of care given.

Although participating in this study will not be of immediate benefit to you, the information you contribute may help to improve the quality of care given to clients. If you choose to participate in this study, you will be asked to answer some questions. The questionnaire will take 30 minutes to complete. The questions will relate to your understanding of what it means to be involved in your care and your length of hospital stay.

Your participation in this project is completely voluntary and you may withdraw from the study at any time without penalty. Your questionnaire will be marked with a number, not your name and the questionnaire will be kept in a locked file cabinet. Only the investigator will have access to the questionnaire, and the information will be destroyed when reports of the study are completed.

There are no financial costs associated with your participation.

Signature of investigator _______________________ Date _______________________

Participant's Statement

The study described above has been explained to me and I voluntarily consent to participate in this activity. I have had an opportunity to ask questions and understand that future questions about the research or subjects will be answered by the investigator.

Signature of subject _______________________ Date _______________________
A STUDY TO DEVELOP AN INSTRUMENT TO MEASURE THE QUALITY OF CARE IN ZIMBABWE, BY ADAPTING A TOOL USED IN THE UNITED STATES OF AMERICA AND OTHER COUNTRIES

BY

PETTY TENDAI MAKONI

1994
THE TITLE: A STUDY TO DEVELOP AN INSTRUMENT TO MEASURE THE QUALITY OF CARE IN ZIMBABWE, BY ADAPTING A TOOL USED IN THE UNITED STATES OF AMERICA AND OTHER COUNTRIES.

This Research Project is an integral part of the Bachelor of Nursing Science Degree Programme, and this study was therefore conducted in fulfilment of that requirement.

NAME: MRS PETTY TENDAI MAKONI

UNIVERSITY OF ZIMBABWE

1994
Acknowledgements

I would like to extend my deep appreciation to Dr R J Ndlovu who supervised this study to its completion. I also would like to express my gratitude to all faculty members of the Department of Nursing Science for their support. In this regard I make special mention of contribution made by Dr S Kusserow, Dr M K Anderson and Ms O Kujore.

Warmest thanks to Mrs A Podmore, the Librarian who helped with the literature search, and my colleagues for their peer-review.

I would also like to express my gratitude to nurses and clients at Parirennyatwa Hospital, who participated in this study for their interest and co-operation.

And finally, I would like to thank my children, Wambutso; Shongai; Tafunda; Wachena and Watsunga for their support and understanding throughout this enterprise - with special love and appreciation to Donald, my husband.
The Abstract

Efforts to improve quality of care continue to be made throughout the world, especially given the ever-increasing consumer demands. The accomplishment of such a goal has sometimes become elusive, given the increasing shortage of both human and material resources.

Consumers refer to quality of care as "good" or "needing improvement" as they perceive it. However, there are no standard tools in the National Health Services to measure the quality of health care in general and nursing care in particular.

The purpose of this study was to investigate the quality of nursing care rendered to clients in selected health service areas in Zimbabwe. Utilising the descriptive design, the study sought the clients' views on the care they received, the nurses' views on the care they provided, established what recipients of care perceived as good care and the extent to which these perceptions were shared by nurses. Donabedian's framework which classifies care into three areas of "structure", "process" and "outcome" was used.

Indicators of care were identified from each category. Structure includes, workload as evidenced by nurse-patient ratio, equipment, policies, procedures and the physical environment in which care is provided. Process includes nursing interventions,
orientation of the client to the ward, his own illness and treatment. Outcome includes patient degree of satisfaction, recovery or complications.

The study was conducted in three orthopaedic wards at Parirenyatwa Hospital. A sample of thirty patients was selected using systematic sampling from a total of ninety patients. The sample of ten nurses was randomly selected from the general nurse population of nineteen.

The research instruments were, a self-administered questionnaire for nurses, a structured questionnaire utilising the face to face interview schedule for patients and a check-list on items relevant to the provision of care for orthopaedic clients.

Findings were that 90% of patients stated that they were satisfied with meals, their surroundings, their reception on admission and that nurses were responsive to their call for help. Eighty percent stated that information regarding orientation to the ward was inadequate. Forty percent stated that they did not receive information on the nature of their illness and over 90% also indicated that they received no information on the rationale for the treatment they were receiving. 100% of nurses indicated that the nurse-patient ratio was too high. 90% of the nurses stated that they oriented the patients on admission and 100% stated that patients received information on their treatments.
There was no congruency between the patients' views and the nurses' views in relation to orientation to hospital procedures, information about illness and treatment received. Findings from observation using the check-list indicated shortage of equipment notably sphygmomanometers.

The recommendations of the study include a suggestion that nurses in Zimbabwe should consider developing the quality of care indicators along the lines of "structure", "process" and "outcome" at national level to serve as a basis for further development in the measurement of care.

KEYS WORDS

1. Quality of care
2. Clients' perception of care
3. Nurses' perception of care
4. Satisfaction with care.
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<td>System of establishing contact with patients' relatives</td>
<td>87</td>
</tr>
</tbody>
</table>

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Chapter I

1.1 INTRODUCTION

Nurses as health care providers seek to provide effective and efficient care to the clients they serve. The consumers of care want to know whether they are getting the right care for the fees they are paying. The Government, a funder of health care and a protector of the health of the population also seeks effective and efficient health care, these sentiments were expressed in a World Health Organisation, (WHO) (1993) report on "The Contemporary use of Standards in Health".

Concerns about the quality of health care are not new. Currently, consumers of health in Zimbabwe have, through the newspapers and the media, expressed their dissatisfaction with the type of care they receive. For instance, in the Herald of February (21st 1994), the Deputy Minister of Health, at a Nurse Managers’ meeting, attacked the negative attitude of nurses and asserted that the standards of cleanliness were deteriorating.
Clients complain that nurses are always busy and do not have sufficient time to talk to them and that their conversation is related to the tasks they carry out. It thus becomes imperative to examine how nursing is coping with these complaints.

Nursing, today, is facing multiple challenges which include dealing with financial constraints, shortage of staff and equipment, lack of incentives, incorporation of the expanding role of the nurse and demands of an increasingly informed public. The ever-increasing consumer demands against the backdrop of everworsening economic constraints have had a negative bearing on the availability of both human and material resources. These factors have created an acute awareness of the need to improve and increase nursing care, not withstanding the aforesaid limitations. This is echoed by a W.H.O. publication (1993), which stated that: "We must strive to do better with what we have, which means we must organise and manage more carefully and continually evaluate how we are doing .... Many countries now recognise the need for national standards for hospitals and are pursuing their establishment."

Consequent upon the foregoing, this study seeks to create and develop an instrument to measure the quality of care given to the clients we serve.
1.2 THE PROBLEM STATEMENT

There are no standard tools to measure the quality of care within the National Health Service in Zimbabwe. This means that within the health services, there is no consistent way of assessing the goals of standardizing and measuring the quality of care.

1.3 THE PURPOSE OF THE STUDY

The study seeks to investigate the quality of care rendered to hospitalised clients. Questions to be answered by the study:-

1) What are the clients’ views on the care that they receive?

2) What are the nurses’ views on the care that they give?

3) To what extent are clients’ views shared by nurses?

4) How is the availability of key supplies impacting on the quality of care?
THE SIGNIFICANCE OF THE STUDY

a) Presently, there are no locally developed indicators of the quality of care, although all health workers and consumers refer to ‘quality of care’ as ‘good’ or ‘needing improvement’ Giebing (1974). This means that everyone may be using a different and non-universally defined yard-stick. It follows that, if there are indicators, professionals will have a yardstick which they will use as an objective to achieve.

b) Written, quantifiable and standardized indicators will enable planners and nurse managers to specify requirements for being able to provide what is established as ‘acceptable quality’.

c) Planners and nurse managers can move realistically, plan for the resources that are necessary to meet the specified acceptable minimums; for example, staff resources and equipments.

The study is expected to provide information not presently available in the areas outlined.
1.5 Definitions:

**Care** : Care is the technical and interpersonal management of a client’s health needs and illness, including health promotion.

**Client** : An individual seeking health care. In the context of this study client is interchangeable with patient.

**Health** : Health is a dynamic state, individually perceived, that continuously reflects the interaction of the bio-psycho-social being with his environment.

**Nurse** : A person who is trained, registered and licensed to practice, by the General Nursing Council.

**Nursing** : Nursing is an art and a science. It involves the therapeutic use of self, the application of scientific knowledge and utilisation of technology in the management of the health of the complex human being. This intervention being done at any period of the individual’s life from conception to death, and in a variety of settings.
Quality Care: The degree of minimum excellence as perceived by both the client and the nurse. It is a measurement both qualitative and quantitative, of the extent to which nursing care objectives are being fulfilled.

Quality Control: A system for maintaining desired standards in a product.

Standards: Agreed upon levels of excellence against which performance is measured.

Criteria: Specific measurable statements that reflect the intent of the standard.

Instrument: A tool through which an assessment is done or effected.

Evaluation: A process that determines the extent to which the results of nursing interventions were successful in achieving predetermined standards of nursing care.
Chapter Two

2. LITERATURE REVIEW

2.1 INTRODUCTION

This study endeavours to establish the various, variables which could be used as performance indicators. This would assist in developing an instrument to measure the quality of nursing care. Utilising the structure, process and outcome framework, relevant studies that address quality of care will be discussed in relation to this study.

2.2 THEORETICAL FRAMEWORK

Dr Avedis Donabedian (1980) developed a generic foundation for viewing quality in the health-care field. He stipulated that there are three major approaches to quality assessment, ‘structure’ ‘process’ and ‘outcome’.
<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>PROCESS</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>Nursing care activities and interventions</td>
<td>Restoration of Physical and mental health status.</td>
</tr>
<tr>
<td>Environmental Resources</td>
<td>Orientation of the patient.</td>
<td>Patient’s perception of quality care.</td>
</tr>
<tr>
<td>Organisational Resources: - administration of ward/hospital.</td>
<td>Information given to clients</td>
<td>Social and physical function.</td>
</tr>
<tr>
<td>Standards of Practice - measurement tools - culture of nursing unit</td>
<td>Health Education Documentation of care.</td>
<td>Health attitude, knowledge and behaviour.</td>
</tr>
</tbody>
</table>

Donabedian argued that this triad approach is possible because there is a fundamental functional relationship among the three elements.
The structural characteristics of the settings in which care takes place influence the process of care either to enhance or diminish the quality and changes in the process of care will in broad terms influence the effect of care on the health status. In the analysis of the tenets of this study, Donabedian’s theory is advanced as the point of reference.

2.3 PROBLEMS AND ISSUES

Matters concerning quality of care assessment have been widely researched in the developed world. According to Andersen (1994) public awareness in health needs continues to increase and questions continue to be asked as to the relevance of standard setting and quality assurance activities. Hence research on quality of care assessment continues despite current global shortage of human and financial resources.

2.4 DEFINITION OF QUALITY OF CARE

This study seeks to establish how quality is both defined and perceived by the clients. Quality of care has been defined by Donabedian A (1980) as the carer’s "ability to achieve the highest possible net benefit according to the valuations of individuals and of the society".
He further espouses that co-ordination, continuity and accessibility are attributes that influence care and function as performance indicators. Williamson J W (1978) as quoted by Giebing H (1994) in her article, "Nursing Quality management" described quality as the "extent to which benefits achievable under optimal conditions of care are actually achieved within reasonable cost constraints."

Since the focus of this study is to develop a tool for measuring quality, it is appropriate to review the already existing quality assurance tools. This aspect is also an important structural component of the theoretical framework in instituting standards of care. There are already some quality assurance tools that have been used and continue to be used to measure quality of nursing care, as found in the Senior Monitor Index, the Rush Medicus Index, the Nursing Audit, Qualpacs and the Monitor. A study by MacGuire J M (1991) used the Senior Monitor Index in three wards for the elderly patients, to assess the quality of care before and after a change to primary nursing. The findings of this study revealed that regular assessments helped nursing staff to look at the care they were providing and to take steps to improve that care. Although the process of change did not yield immediate benefits, the exercise served as a useful instrument to inspire nurses to improve their practice.
The current trend of thought is that the practitioner who is involved in providing the care should devise a measurement tool to assess the comprehensiveness of the quality of care being given. A study by Harveys (1991) made an evaluation of approaches to assessing the quality of care.

Using some of the existing quality assurance tools as those aforementioned, Harveys’ findings were that the preset standards were often developed by experts as a ‘Top-down’ system, controlled by managers and not people in direct care-giving situations. Therefore, the practitioner’s role is limited, more reactive and less responsive in that they are expected to respond to recommendations for improvement of care from outsiders thereby rendering the process of change problematic.

The alternative which he termed the dynamic approach required that the practitioners functioned in a much more proactive way in their endeavours to identify the standards against which their practice was evaluated. This is a ‘bottom-up’ method of quality assurance.

Examples of some of practitioner based quality assurance systems are the Unit-Based Approach U.S.A. and the Dynamic standard setting system U.K. Harvey’s study recommended that a ‘bottom-up’ approach which developed ownership and
control, to practitioners yielded positive outcomes of nursing care. This was echoed by Pelkonen (1994) when she stated that, that approach "values the thinking process and knowledge base of each individual nurse and fostered self-control".

The management style of a ward influences the activities of nurses as rightly categorised under the structural component of Donabedian's triad. Pelkoren (1994) gave credit to the Finnish head nurse(s) and director(s) of nursing services, for the success of quality assurance efforts in health care organisations in Finland. She stated that the leadership style was committed to the attainment of quality care as it provided "new ideas, knowledge, giving feed-back, managed conflicts, organised workgroups and allocated time for their colleagues". That underlined the fact that the culture of an organisation or the cultural norms of a nursing unit was a crucial factor in the furtherance of quality care. Commenting on cultural change, Ariakian V. (1991) stated that employees need to be empowered by providing them with positive feedback and reinforcing those of their attitudes and behaviours that support quality of nursing care.
The process of providing care involves creating a conducive atmosphere for recovery, sharing information with the clients, involving them in their own care and maintaining their dignity. A study by Evans B J (1987), showed that there was failure on the part of doctors to treat patients as people, by not being warm and caring. The patients in that study complained that doctors did not give adequate information regarding their condition and treatment. This study revealed that the patient’s perceptions of the consultation was influenced by any attempts by the doctor to improve cognitive and affective aspects of the interaction. This quoted study is relevant to the present study in so far as it seeks to establish the extent to which the clients are oriented to their illness and treatment.

Stockwell F. (1984) in her study "The unpopular patient", found that nurses felt they had enough conversation while carrying out tasks. Nurses felt guilty if they "chatted" to patients because their colleagues would think they were slacking. Nurses also felt uncomfortable during slack periods and did not feel that having conversation with patients constituted "work" at such time.
If they stopped to talk to patients, nurses would converse 
with the patients they most enjoyed caring for. From this 
study patients felt that nurses were too busy to be 
bothered with trivial matters. Whilst they yearned for 
more opportunity to voice their concerns, worries and 
needs, they however felt that the more seriously ill 
patient deserved more nursing care.

Stockwell’s study highlights areas which nurses could fill 
in to meet their client’s concerns and utilise time 
qualitatively. As much as it is a process of providing 
care, Stockwell’s study reflects a lot about the influence 
of the culture of the unit, on the care being given.

Kramer M and C Schmalenberg (1988) in their study of 
Institutions of Excellence, "Magnet Hospitals", stated that 
"90% of patient care, the hospital’s product was delivered 
by nurses". The study noted that the value of quality care 
and excellence in the nursing department was apparent. The 
striking features were, that the care was planned and 
comprehensive and the patients felt that they were special 
and that there was a nurse looking after them. Some of the 
values noted revolved around, "love and high quality 
workmanship, competent, personalized and cost-effective 
care".
This study demonstrated that quality care can be provided given the right values as adopted by the ward and practised by the nurses.

Documentation, inherent to the process of care, is regarded as the salient key for personal development and professional growth. Documentation serves as a vehicle to communicate the care, a tool to enforce accountability in order that the continuity, efficiency and quality of care is more readily measured. It is not only a legal requirement, but documentation provides the foundation upon which the body of nursing knowledge is grown.

A study by Christie J (1993) on Quality documentation, before and after introducing a nursing record, using the SOAPE model, revealed that there was significant improvement in documentation and that the model provided the nurses with a framework on which to base care and to teach others. The recommendations of this study suggested that nurses needed more knowledge in relation to planning care, health education and discharge planning.
It is also the concern of the present research study to establish the effectiveness of the nurses' reporting system, since documentation provides one type of criteria for measurement of care.

The assessment of the outcome of care assists in indicating the quality of care. Donabedian A, (1988) supported that view and saw in it a "method by which the goodness of alternative strategies of care is established". He further postulated that, patient satisfaction may be considered one of the desired outcomes and a crucial ingredient in health matters. He therefore argued that, "an expression of satisfaction or dissatisfaction" constituted the patients' overall perception of the quality of care. Dr Jones B R (1993) in his study on, "How do we measure consumer opinions of outpatient clinics", stated that "satisfaction with care is an important outcome" and that it could determine whether a client seeks health care, complies with treatment and maintains a continuing relationship with practitioner.

He suggested that satisfaction was a complex concept and that a number of factors were related to it, for example, "life-style, past experiences, future expectations and values both of individual and society".
From that study he concluded that assessing consumers' opinion was not an impossible task and that simple methods as comment cards were effective, but his summary was that a combination of methods would allow for the realisation of an informed view of consumer opinion. The quoted study on patients' satisfaction relates well to this research study in that, this study also seeks to establish what recipients of care perceive as quality care.

Bond S and L H Thamsa (1992), in their study on "measuring patients' satisfaction with nursing care", concluded that reliable and valid measures were costly to develop and that these should be avoided where suitable measures are in place. This was understandable especially given the fact that the concept of patient satisfaction is nebulous. Patients tend to say a general statement of satisfaction to give an overall assessment, but will express criticism when asked about more specific aspects of care.

This point of view is corroborated by Blaney C L (1993) in her article "Steps to improve Quality, Measure it, Monitor it", which quoted from a Nigerian Family Planning study that, "client satisfaction with interpersonal relations is difficult both to conceptualize and to measure, given the problems of overgeneralization and respondent courtesy bias".
Tools used to measure patient satisfaction are wide and varied and these summarise the outcome category of the theoretical framework. Needless to say that a client normally expresses satisfaction when his health has been restored.

For the nursing profession to survive in the competitive arena of today’s health, Hodges L C and M L Icenhour’s Viewpoints (1993) on "Measuring the quality of nursing", stated that, "these outcomes must be analysed for cost-effectiveness and that quality assurance programmes must not only incorporate structure and process variable, but also relate them to measurable patient outcomes."

The client’s access to care-provider for information relating to his ailment enhances the necessary understanding that the care-provider should have of his client and the necessary confidence that the client should have in his care-provider. This nurse-patient relationship paves way for the free flow of information upon which quality of care may reasonably be determined.
This literature review has addressed studies of the 'structure', 'process' and 'outcome' of care in line with Donabedian's theoretical framework for assessing quality of care. The top-down approach to quality assessment as described by top management did not yield the intended result, as such an approach tended to thwart initiative and free expression by both the nurse and the client. This tended to give a distorted and superficial picture about quality of care. On the other hand, the 'bottom-up' approach created the necessary conditions in which assessment tools could be developed. The approach supports this research study in that it is what the clients perceive as quality of care that will assist the nurses in measuring their own performance. This can be achieved by ensuring a progressive organisational culture which reinforces those attitudes and behaviours that support quality nursing care.

The process of care involves purposeful interaction between clients and care-providers towards attaining a common goal, that of achieving optimum health for the clients. The studies reviewed, revealed that when patients are
inadequately oriented to their illness and treatment, they feel isolated in their own management. Stockwell’s study of the "Unpopular patient", identified the need for planning comprehensive care for clients and that addressing the concerns of clients helps in achieving client satisfaction. For personal growth and professional development, documentation of the process of care was recognised as essential. To appreciate its importance, appropriate systems for documentation have to be used and their usefulness evaluated to ensure effectiveness.

The outcome of patient care contributes to the survival of the nursing profession, in that the measurable outcome can help the profession in identifying its contribution to the overall care. Patient satisfaction has been addressed by studies and reviewed as central to patient outcome, in so far as it summarises the type of care received. The concept of patient satisfaction albeit nebulous, is inherent in the process of getting healed through the provision of quality care.

The present study is looking at quality of care through selected aspects of 'structure', 'process' and 'outcome'. While these areas have been addressed in the U.S.A. Europe and other countries, available literature does not seem to
indicate that such work has been done in Zimbabwe, hence the great concern to address issues concerning the quality of care the clients are receiving.

With regards to the structure, indicators selected to represent this area are, competency levels, ward policies and procedures, workload, equipments and supplies. The process indicators will include overall orientation of clients to the hospital and related procedures to their illness and treatment, the nurses’ responsiveness to the clients’ needs and the documentation of the nursing process will be addressed. The clients’ perception and interpretation of care will be addressed as outcome indicators. An attempt will also be made to assess the extent to which the nurses’ perceptions of the quality of care are congruent to those of patients through use of similar indicators which have been used for clients.
CHAPTER THREE

3.1 RESEARCH METHODOLOGY

The descriptive design was chosen as a Research Method for this study. Descriptive research involves observation, exploration and description of what is and analyses findings. The method was chosen as clients and nurses would be able to articulate their concerns and interests about the quality of care. It was assumed that the input of the study samples would assist to sharpen the researchers' insight in the area of quality of care. It was further assumed that this method would assist in examining the indicators that determine quality of care.

3.2 Research Setting

The research study was carried out in three orthopaedic wards at Parirenyatwa Hospital. Parirenyatwa Hospital is a specialist hospital in Harare.

Orthopaedic patients were chosen as the population for study because they normally stayed longer in hospital, were more frequently mentally alert and were therefore able to describe their responses to external stimuli reasonably well.
The orthopaedic clients tended to interact more with nurses in relation to fulfilling their activities of daily living as they progressed on a continuum from dependence to independence.

3.3 THE SAMPLES

The sample is a part of a large population and is usually selected to be representative of that population.

(i) Clients' Sample

A sample of 30 clients was selected using systematic sampling from a total population of ninety clients. Every third client was selected from a ward of thirty clients and this was repeated in the other two wards. Ten clients were therefore picked from each of the three wards, making a total sample of 30.

EXCLUSION CRITERIA

Unconscious patients, very ill patients and those with difficulty in communicating were excluded.
(ii) Nurses’ Sample

There was a qualified nursing population of twenty-two, made up of nineteen General nurses and three State Certified nurses, who manned the orthopaedic wards. From this population a sample of ten nurses made up of one state-certified nurse and nine General nurses was selected. Numbers one to six were written on pieces of paper. These papers were folded and placed in a container, from which nurses picked their numbers. Numbers one to seven were written on pieces of paper for the ward with seven nurses. Numbers one to three were written on pieces of paper for the state-certified nurses. For the General Nurses, those who picked numbers one to three became the sample for each of the wards and the one who picked number one for the state-certified nurses, making a total sample of ten nurses.

3.4 Ethical Consideration

A letter was written to the Medical Superintendent of Parirenyatwa Hospital, seeking permission to conduct the research, this was granted. Human beings have a right to respect and dignity. Letters were written to the sample - subjects, giving the details of the study, its purpose and significance. This was done to obtain consent from them.
The letter was read to individual clients and was translated to vernacular where necessary. The sample subjects were assured of confidentiality in the handling of the information obtained.

3.5 Data Collection

The research instruments used were:

(a) Check-list
(b) Face-to-face interview schedule questionnaire for clients
(c) Self-administered questionnaire for nurses.

(a) The Checklist
A Checklist was used to observe and record the supplies, deemed necessary for providing care in the three orthopaedic wards. The checklist included the availability of equipment such as wheel-chairs and sphygmomanometers and their working condition, the number of thermometers available and the patient-item ratio, and the cleanliness of the ward environment. The list included the availability of sundries, such as traction kits and orthopaedic wool and the availability of stationery. The advantage of the observation method was that equipment in use were identified and recorded.
(b) Face to face interview schedule (For Clients)
A structured questionnaire providing for open and close ended questions had sections covering the following:
Section I Biosocial data, Section II, the process of care as ascertained through admission and orientation into ward; perception of quality of care; orientation to illness and to treatment. Section III addressed the outcome of care as determined by client satisfaction.

The advantage of using that method was that information could be obtained from people who were illiterate, but had an important contribution towards the fulfilment of the exercise. All questions were answered, with verbal and non-verbal behaviour observed and evaluated. The disadvantages of using that method were that; it had to deal with an element of bias, where the respondents' answers were viewed as designed to suit the interviewer.

(c) Self-Administered questionnaire (For nurses)
A structured questionnaire providing for open and close ended questions, had sections covering the following:
Section I Biosocial data, Section II Subsection (i) addressed the structure component of care in work - experience including ward policy and procedures and work load as reflected in nurse-patient ratio.
Subsection (ii) addressed the process of care as in client orientation and information on client illness and treatment. Section III addressed the outcome of care covering client interpretation and view of care rendered.

The advantages of using that method were that it was less time consuming than interviews and observations; respondents enjoyed comfort in their anonymity, no bias was present and they were not pressured to make immediate responses. The disadvantages were that certain items were omitted and some respondents misunderstood some of the questions.

3.5.1 Validity and Reliability

Validity is the extent to which an instrument reflects and measures what the researcher intends to establish.

Reliability is concerned with the consistency, dependability and accuracy of the measurement and indicates how much confidence can be placed in the results.

In the study, the degree of validity of the questionnaire was reviewed with peers, matching with objectives for
content validity. A pilot study was then carried out to ascertain validity. All ambiguous statements were re-examined, important missing data were identified, culminating in the construction of more relevant questions.

3.5.2 The Pilot Study

The pilot study is a trial run on a small scale of the actual study. The researcher conducted the pilot study at Harare Central Hospital, on nine orthopaedic clients who were systematically sampled.

Four qualified nurses from the two orthopaedic wards were randomly selected. The objectives of the pilot study were to assess clarity of the statements the validity and reliability of each item in the instrument and the suitability of the language used. The results would be used to re-organise the questionnaire wherever necessary, indicate the manner in which data would be analysed as well as ascertain the average time taken to complete the questionnaire.

The results of the pilot study necessitated the modification, restructuring and also elimination of some items in the questionnaire.
Procedures for Data Analysis

Collected data will be analysed for its completeness and representativeness. This is followed by coding grouping and categorising of data.
This chapter gives details of the analysis of the two questionnaires, (a face to face interview questionnaire for clients and the self-administered questionnaire for nurses) and findings from the checklist. Data consisted of descriptive and statistical analysis of content and manual handling of each item referred to, in the two questionnaires and checklist mentioned above. Data was coded, scored and interpreted.

Return Rates

The return rate was 100% for clients - Number = 30.
The return rate for nurses was 100% - Number = 10.

4.1 Analysis of Data from Clients

SECTION I

BIOSOCIAL DATA
Table 1 Addressed gender, marital status, and the age of respondents, covering statements 1, 2, and 3.

<table>
<thead>
<tr>
<th>GENDER</th>
<th>NO.</th>
<th>%</th>
<th>MARITAL</th>
<th>NO.</th>
<th>%</th>
<th>AGE</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>STATUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALES</td>
<td>17</td>
<td>57.7</td>
<td>MARRIED</td>
<td>17</td>
<td>56.7</td>
<td>18-20</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>FEMALES</td>
<td>13</td>
<td>43.3</td>
<td>SINGLE</td>
<td>10</td>
<td>33.3</td>
<td>31-50</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIVORCED</td>
<td>3</td>
<td>10</td>
<td>OVER</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50 YRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N =</td>
<td>30</td>
<td>100</td>
<td>N =</td>
<td>30</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

56% were males and 43.3% were females, this gave a balance of the views held by the two genders about the type of care they receive. Men tend to be exposed to greater risks than women as reflected by the above gender representation of clients admitted into the orthopaedic wards.

A comparison of the marital status and perception of care was made and the following were the findings: 82.4% of those married said the care was good while 17.6% said it was fair.

60% of those who were single said the care was good and 40% said the care ranged from poor to fair.
100% of those divorced said the care was fair. Family support or lack of it influences attitude towards care as demonstrated by the fact that 82% of those married said that the care was good, 60% of those single agreed whilst none of those who were divorced thought that the care was good. The average age was 35 years. Age influences the way one interprets his environment and this in turn affects one’s attitude towards care. The average age of the respondents reflects a mature and responsible age-group.

4. Statement 4
Educational level of respondent.

<table>
<thead>
<tr>
<th>Diploma/Degree</th>
<th>13.3%</th>
<th>43.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>'O' Level</td>
<td>33.6%</td>
<td></td>
</tr>
<tr>
<td>NIL</td>
<td>6.7</td>
<td></td>
</tr>
</tbody>
</table>

It is assumed that education brings with it awareness of health needs and an ability to source health information. A comparison was made amongst three variables; educational level, perception of care and information received on illness.
Table 2: A Comparison of Educational Level, Perception of care and Information received on illness.

<table>
<thead>
<tr>
<th>EDUCATIONAL LEVEL</th>
<th>NO. OF CLIENTS</th>
<th>PERCEPTION OF CARE</th>
<th>INFORMATION ON ILLNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% FAIR   % GOOD</td>
<td>WITH       % WITHOUT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(%)       (%)</td>
<td>INFOR (%)   INFOR (%)</td>
</tr>
<tr>
<td>DEGREE/ DIPLOMA</td>
<td>4</td>
<td>75        25</td>
<td>50         50</td>
</tr>
<tr>
<td>'O' LEVEL</td>
<td>13</td>
<td>23.1      76.9</td>
<td>69.2       30.8</td>
</tr>
<tr>
<td>GRADE SEVEN</td>
<td>11</td>
<td>27.3      73.7</td>
<td>54.5       45.5</td>
</tr>
<tr>
<td>NIL</td>
<td>2</td>
<td>50        50</td>
<td>50         50</td>
</tr>
</tbody>
</table>

From the comparison made, the perception of care was not influenced by level of education. However, those who were given information about their illness, irrespective of level of education had a more positive perception of care given than those who did not. None of the respondents inquired about their illness. The assumption that education brings with it awareness of health needs did not apply.
4. Statement 4 (b)

The occupation of respondents.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>10%</td>
</tr>
<tr>
<td>Technical</td>
<td>23.3%</td>
</tr>
<tr>
<td>Clerical</td>
<td>6.7%</td>
</tr>
<tr>
<td>Unskilled</td>
<td>10%</td>
</tr>
<tr>
<td>Nil</td>
<td>43%</td>
</tr>
</tbody>
</table>

43% of the respondents were unemployed, of these 62% considered the care good, whilst 38% said it was fair. Of the 57% who were employed, 70% stated that the care was good whilst 30% said it was fair. There was no significant difference in perception of care between the employed and the unemployed. Therefore occupation does not influence perception of care.

5. Statement 5

The race of the respondents:
96.7% of the respondents were African, 3.3% of the remainder being coloured and there were no Europeans. It was not possible to assess educational, occupational, religious and socio-economic differences in perception of care by race.
6. Table 3

The religion of the respondents.

<table>
<thead>
<tr>
<th>RELIGION</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
<th>PERCEPTION OF CARE % GOOD</th>
<th>% FAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATHOLIC</td>
<td>10</td>
<td>33.3</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>PROTESTANT</td>
<td>10</td>
<td>33.3</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>PENTECOSTAL</td>
<td>5</td>
<td>16.7</td>
<td>100</td>
<td>--</td>
</tr>
<tr>
<td>NIL</td>
<td>30</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Religious belief had no influence on perception of care amongst the Catholics and the Protestants. On the other hand Pentecostal believers had a positively emphatic perception of care, while the Nil category also had a strong positive perception of care.

7. Statement 7

The diagnosis of the respondents.

INEFFECTIVE BONE DISEASE
FRACTURED TIBIA & FIBULA AND FRACTURED FEMUR
MALIGNANT BONE DISEASE
AMPUTATION

63.4% of the respondents had fractures of the tibia, fibula and femur indicating high incidence of immobility. Knowledge of diagnoses helped to verify information given by clients.
SECTION II
Admission and Orientation into Ward

8. Statement 8

Question: When were you admitted into the hospital?
The average stay of the respondents in the ward was 25 days. This period provided ample time for clients to be sufficiently acquainted to their environment and be able to express a balanced view on the care they were receiving.

9. Statement 9

Question: Were you aware of what was happening on admission?
80% of the respondents were aware of what was happening on admission and 20% gained consciousness after admission. To ascertain alertness of the clients was relevant for the provision of accurate information.

9.1 Statement 9 (b) and (c) TABLE 4

The two statements combined elicited the clients' perception of their reception into hospital

<table>
<thead>
<tr>
<th></th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRIENDLY</td>
<td>26</td>
<td>86.6</td>
</tr>
<tr>
<td>INDIFFERENT</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>UNFRIENDLY</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>N =</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

86.6% stated that reception was friendly. This is significant in that the first impression tends to last longer and further influences perception of care.
1.2 Table 5
Reasons for positive response.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse handled me well and gently</td>
<td>12</td>
<td>46.2</td>
</tr>
<tr>
<td>Nurses’ attitude was good.</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Nurses were cheerful and welcoming</td>
<td>12</td>
<td>46.2</td>
</tr>
<tr>
<td>I got the attention I needed from the doctor</td>
<td>1</td>
<td>3.8</td>
</tr>
</tbody>
</table>

N = 26

96.2% of the clients were impressed by the way the nurses handled them, their cheerful and welcoming manner. 3.8% of the clients were happy with the attention given to them by the doctor. These responses emphasized the importance of good public relations.

9.1.3 Table 6
Reasons for Negative Response.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had to wait for some time for the doctor to come</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>There was a delay in treatment and settling down</td>
<td>2</td>
<td>50</td>
</tr>
</tbody>
</table>

N = 4

100% of the clients with negative responses attributed it to delay in management. It would appear these responses arose from poor public relation-skills.
10. Table 7

Question: Were you given information relating to the following?

<table>
<thead>
<tr>
<th>ITEM</th>
<th>INFORMATION RECEIVED</th>
<th>INFORMATION NOT RECEIVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward Routine</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Meal Times</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Toilet facilities</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Visiting time</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Recreational facilities</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>N = 30</strong></td>
<td></td>
</tr>
</tbody>
</table>

80% of the clients did not receive information on admission pertaining to their surrounding and other facilities.

20% of the clients were given information on meal and visiting times only. It would appear the more obvious aspects of the care providing were ignored.

PERCEPTION OF QUALITY OF CARE

11.1 Statement 11

Question: Is this your first admission into hospital?

43.3% (13) said it was their first admission and 56.7% (17) said it was not their first admission into hospital.
11.1.1 Table 8
If the response is NO, how do you find the way you are being treated now compared to the last time?

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETTER</td>
<td>9</td>
<td>52.9</td>
</tr>
<tr>
<td>SAME</td>
<td>5</td>
<td>29.4</td>
</tr>
<tr>
<td>WORSE</td>
<td>3</td>
<td>17.7</td>
</tr>
<tr>
<td>N =</td>
<td>17</td>
<td>100</td>
</tr>
</tbody>
</table>

56.7% of the respondents had been admitted into hospital before. Of these 52.9% said the care had improved, 29.4% said it was the same and 17.7% said the care had worsened. Reasons for positive and negative responses are tabulated below.

11.1.2 Table 9
Reasons for positive choice.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was treated well</td>
<td>5</td>
<td>35.7</td>
</tr>
<tr>
<td>Nurses express love in caring as before</td>
<td>4</td>
<td>28.6</td>
</tr>
<tr>
<td>There is good food and environment is not crowded</td>
<td>5</td>
<td>35.7</td>
</tr>
<tr>
<td>N =</td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>

Good public relations and continued dedication to duty by nurses, improved food and less congested physical environment were cited as reasons for the favourable perception of care.
11.1.3 Table 10
Reasons for negative responses.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nurses in the previous ward were more cheerful</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>For the last two months the doctor has not been seeing me. I suspect because I am not on Medical Aid</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>My wound is not dressed well</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>N =</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

Poor public relations by nurses, neglect by the doctor and lack of recovery were given as reasons for the negative perception of care.

12. Table 11
How often do your relatives visit you?

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>Every other day</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Once a week</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>N =</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

All clients were visited by relatives with 70% of them enjoying daily visits. There was evidence of strong family support for clients.
13. Table 12

How do you find care?

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOOD</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>FAIR</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>POOR</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>30</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The clients were impressed with the care given with only one respondent saying that it was poor. Below are two tables to illustrate numbers of clients and their qualifications of the choice of the type of care received.

13.1.1 Table 13

Reason for Good care:

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nurses are responsive to call for help</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Nurses express love and are friendly</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>The nurses do everything right</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Nurses assist with all our needs whilst we are in bed</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Twenty respondents, constituting 66.6% of the whole found nurses impeccable. Above remarks also refer.
13.1.2 Table 14

Reasons for Fair Care.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a delay in attending requests</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>Some nurse-aides are quite rude</td>
<td>2</td>
<td>22.2</td>
</tr>
<tr>
<td>Lack of linen</td>
<td>1</td>
<td>11.1</td>
</tr>
<tr>
<td>Neglected, nobody explains activities</td>
<td>2</td>
<td>22.2</td>
</tr>
</tbody>
</table>

N = 9 respondents constituting 30% of the whole were not impressed with their treatment, with 44.4% of them alleging tardiness in having their requests attended to. Another 44.4% alleged rudeness by nurse-aides and general neglect by the staff. 11.1% cited shortage of linen.

13.1.3 One client constituting 3.3% of the whole said the care was poor because, ‘the food is horrible’.

ORIENTATION TO ILLNESS

14. Statement 14

Question: Where you given information about your illness?

60% (18) of the respondents acknowledged that they were given information about their illness.

40% (12) of the respondents were not told anything about their illness.
14.1.1. Statement 14(b)

Question: If yes, who gave you the information?

Of the 60% who received the information, 50% (15) received the information from the doctors and 10% (3) received the information from the nurses. The pattern of response reflects the minimal interaction between clients and nurses and reveals that dominant role of the doctor.

14.1.2. Statement 14 (c)

Question: What were you told?

By validating the information the clients said was given to them, with the diagnosis written in their notes, there was 100% consistency in the information given to clients by doctors and nurses.

14.1.3. Statement 14 (d)

Question: If not, what do you think you suffer from?

The 40% who did not receive information had some idea of what they were suffering from, but were not able to specify the ailments and their implications. A case exists for nurses to be encouraged to disseminate information for the benefit of clients given their role in providing care. This strategy would greatly reduce the incidence of ignorance about the care that the clients receive.
### Table 15

**Question:** Were you given information about your treatment?

<table>
<thead>
<tr>
<th>TREATMENT</th>
<th>NO. OF CLIENTS</th>
<th>RATIONAL GIVEN</th>
<th>RATIONAL NOT GIVEN</th>
<th>NOT APPLICABLE IN RELATION TO WHOLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBSERVATIONS</td>
<td>30</td>
<td>1</td>
<td>3.3</td>
<td>29</td>
</tr>
<tr>
<td>WOUND DRESSING</td>
<td>20</td>
<td>6</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>ORAL MEDICATION</td>
<td>29</td>
<td>19</td>
<td>65.5</td>
<td>10</td>
</tr>
<tr>
<td>INJECTION</td>
<td>24</td>
<td>18</td>
<td>75</td>
<td>6</td>
</tr>
<tr>
<td>TRACTION ALIGNMENT</td>
<td>10</td>
<td>7</td>
<td>70</td>
<td>3</td>
</tr>
<tr>
<td>PLASTER OF PARIS</td>
<td>6</td>
<td>4</td>
<td>67</td>
<td>2</td>
</tr>
<tr>
<td>PHYSICAL EXERCISE</td>
<td>25</td>
<td>11</td>
<td>44</td>
<td>14</td>
</tr>
</tbody>
</table>

65% of clients stated that nurses gave rationale for treatment involving oral medication, injections, traction alignment and plaster of paris. On the other hand 96.6% of clients said they did not get the rationale for observations made, 70% for wound dressing and 56% for physical exercises. It appeared nurses put emphasis on dependent functions more than their unique independent functions.
**Orientation to Treatment**

**Table 15**

**Question:** Were you given information about your treatment?

<table>
<thead>
<tr>
<th>TREATMENT</th>
<th>NO. OF CLIENTS</th>
<th>RATIONAL GIVEN</th>
<th>RATIONAL NOT GIVEN</th>
<th>NOT APPLICABLE IN RELATION TO WHOLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBSERVATIONS</td>
<td>30</td>
<td>1</td>
<td>3.3</td>
<td>29 96.6</td>
</tr>
<tr>
<td>WOUND DRESSING</td>
<td>20</td>
<td>6</td>
<td>30</td>
<td>14 70</td>
</tr>
<tr>
<td>ORAL MEDICATION</td>
<td>29</td>
<td>19</td>
<td>65.5</td>
<td>10 34.5</td>
</tr>
<tr>
<td>INJECTION</td>
<td>24</td>
<td>18</td>
<td>75</td>
<td>6 25</td>
</tr>
<tr>
<td>TRACTION ALIGNMENT</td>
<td>10</td>
<td>7</td>
<td>70</td>
<td>3 30</td>
</tr>
<tr>
<td>PLASTER OF PARIS</td>
<td>6</td>
<td>4</td>
<td>67</td>
<td>2 33</td>
</tr>
<tr>
<td>PHYSICAL EXERCISE</td>
<td>25</td>
<td>11</td>
<td>44</td>
<td>14 56</td>
</tr>
</tbody>
</table>

65% of clients stated that nurses gave rationale for treatment involving oral medication, injections, traction alignment and plaster of paris. On the other hand 96.6% of clients said they did not get the rationale for observations made, 70% for wound dressing and 56% for physical exercises. It appeared nurses put emphasis on dependent functions more than their unique independent functions.
SECTION III

PATIENT SATISFACTION

16. Table 16

Question: Do you want your relatives to know your illness through:

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENT</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOURSELF</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>THE NURSE</td>
<td>5</td>
<td>16.6</td>
</tr>
<tr>
<td>THE DOCTOR</td>
<td>8</td>
<td>26.6</td>
</tr>
<tr>
<td>SHOULD NOT KNOW ANYTHING</td>
<td>2</td>
<td>6.6</td>
</tr>
<tr>
<td>N=</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

50% of the respondents wanted to inform the relatives themselves, 26.6% preferred the doctor to do it, 16.6% the nurse, and 6.6% did not want the relatives to know anything. Below are three tables depicting reasons for their choices.

16.1.1 Table 17

Reasons for wanting to inform relatives on their own.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENT</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know the progress I am making and thus, am best placed to inform my relatives</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>I have the freedom to choose who to tell and what to disclose</td>
<td>4</td>
<td>26.6</td>
</tr>
<tr>
<td>N=</td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>
The desire by clients to inform relatives about their illness was not supported by the understanding they had about their own illness. They were merely exercising their right to choose who to divulge their illness to.

16.1.2. Table 18
Reasons for wanting the nurse and doctor to inform relatives.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The doctor explains better for he knows what is wrong</td>
<td>8</td>
<td>61.5</td>
</tr>
<tr>
<td>The nurse/doctor knows what I do not know</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>13</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

These clients sincerely wanted their relatives to know.

16.1.3. Table 19
Reasons why relatives should not know.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>My relatives might think that I am seriously ill, I do not want to bother them</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>I did not want my wife to get worried</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>2</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

These clients were more concerned about the effect, the information about their health would have on their relatives, than with divulging information about their health status. They were also upholding their right to withhold information as they saw fit.
17. Table 20

Do you get the help you need from nurses?

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NO. OF CLIENTS</th>
<th>ON REQUEST</th>
<th>DELAYED</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NUMBER %</td>
<td>NUMBER %</td>
<td>NUMBER %</td>
<td></td>
</tr>
<tr>
<td>BED PAN</td>
<td>24</td>
<td>17</td>
<td>70.8</td>
<td>7</td>
</tr>
<tr>
<td>URINAL</td>
<td>13</td>
<td>9</td>
<td>69.2</td>
<td>4</td>
</tr>
</tbody>
</table>

N = 30

70% of clients said they got the bed pans and urinals promptly, while 30% alleged delays in securing these.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NO. OF CLIENTS</th>
<th>ALWAYS</th>
<th>SOMETIMES</th>
<th>NEVER</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed baths and assisted baths</td>
<td>21</td>
<td>17</td>
<td>80.9</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>Change of bed linen</td>
<td>30</td>
<td>15</td>
<td>50</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Change of pyjamas</td>
<td>20</td>
<td>10</td>
<td>50</td>
<td>8</td>
<td>40</td>
</tr>
</tbody>
</table>

N = 30

60% of clients said they always got the help they needed and were particularly impressed with the priority given to bed baths and assisted baths. 35.2% said they sometimes got the help they needed, while 8% said they never got the help they needed. 30% did not need any help regarding bed-baths and pyjamas.
From these responses it would appear that clients were generally appreciative of the assistance they got from nurses.

18. **Statement 18 and 19**

Addressed the food clients received and the state of their surroundings.

96.7% (29) of the clients, said they were satisfied with food and 3.3% (1) were dissatisfied with the food. The positive response regarding food was attributed to its availability in time and in sufficient quantities.

96.6% (29) of the clients said the surroundings were clean and 3.3% (1) said the surroundings were dirty. The overwhelming appreciation was testimony pointing to the high standards of hygienic conditions maintained in the wards.

**Sensitivity to Pain Control and Other Discomforts**

20. **Table 21** Addressed statements 20 and 20 (1)

<table>
<thead>
<tr>
<th>PROBLEMS ENCOUNTERED APART FROM ILLNESS</th>
<th>WHETHER PROBLEMS WERE DISCUSSED WITH NURSE OR NOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMENT</td>
<td>RESPONSE</td>
</tr>
<tr>
<td>NOTHING</td>
<td>10</td>
</tr>
<tr>
<td>FINANCIAL INSECURITY</td>
<td>5</td>
</tr>
<tr>
<td>NOSTALGIA</td>
<td>10</td>
</tr>
<tr>
<td>WORRIED ABOUT RECOVERY</td>
<td>5</td>
</tr>
<tr>
<td>N = 30</td>
<td>100</td>
</tr>
</tbody>
</table>

67% were concerned with their absence from home, financial position and restoration of health. 33.3% said they had no worries.
Only 20% of the clients discussed their worries with the nurse and 80% did not.

20.1.1 Table 22

Question: If no, explain your answer.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I thought the nurse could not help solve the problem.</td>
<td>4</td>
<td>28.5</td>
</tr>
<tr>
<td>I did not know whether it is the duty of the nurse.</td>
<td>6</td>
<td>42.8</td>
</tr>
<tr>
<td>Indifferent not attaching importance to the problems</td>
<td>4</td>
<td>28.5</td>
</tr>
</tbody>
</table>

N = 14 (100)

The clients did not discuss their problems with the nurse for the reason that they did not know whether it was the responsibility of the nurse to attend to their personal problems. This could be attributed to the failure by nurses to fulfil their role as patient counsellors.

21. Table 23

Question: If in pain are you attended to?

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>On request</td>
<td>27</td>
<td>90</td>
</tr>
<tr>
<td>Long after request</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Ignored</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

N = 30 (100)

Clients were satisfied with the attention given to them by nurses when ever they were in pain.
21.1 Question: Give reasons for attention on request.

90% (27) of the respondents said nurses responded promptly to their calls.

21.1.2 Table 24: Give reasons for attention long after request.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I told the nurse, who in turn would ask the doctor, whilst I am in pain</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>When I call for help nurses come after a while</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>N =</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

Of the three respondents who were attended to long after request, 66.7% cited that the nurse had to contact the doctor whilst they waited, whilst 33.3% felt the nurses took their time to attend to them. The responses by the clients show that nurses did not communicate their reasons for failure to respond to clients promptly.
22. Table 25: Address statements 22 and 23.

<table>
<thead>
<tr>
<th>ASPECTS OF CARE FOUND MOST SATISFACTORY</th>
<th>NO.</th>
<th>%</th>
<th>ASPECTS OF CARE FOUND MOST UNSATISFACTORY</th>
<th>NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses are friendly and the routine they follow makes the care organised.</td>
<td>13</td>
<td>43.3</td>
<td>Nurses are not careful with treatment procedures and the way they communicate</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Nurses respond to call for help promptly</td>
<td>6</td>
<td>20</td>
<td>Giving medication</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving medication</td>
<td>10</td>
<td>33.3</td>
<td>Sist ers, student nurses and nurse-aides should improve attitudes</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Indifferent</td>
<td>1</td>
<td>3.3</td>
<td>Improve human and material resources</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>N = 30</td>
<td></td>
<td>100</td>
<td>N = 30</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

96.7% of the clients demonstrated satisfaction with the nurses' interactional skills and administration of drugs. They also felt that nurses were highly organised in their dispensation of care.

57% of clients felt nurses needed to improve their technical competence, communication skills, attitude and that the wards needed to improve their resources. The 43.3% did not find anything unsatisfactory about the care they got.
24. **Table 26:** Any other views you would like to add?

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIL</td>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td>Increased human and material resources</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Trained staff should participate in treatment procedures for example giving bedpans and supervise student nurses and nurse-aides</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Accept patients’ weaknesses and be more tolerant</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

60% of the respondents did not have further comments whilst the remaining 40% felt that trained nursing staff needed to be more active in the deliverance of care and that the nursing staff needed to improve their attitudes towards clients. Others felt that both human and material resources needed to be improved.
<table>
<thead>
<tr>
<th>ITEMS</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Satisfied with - Meals</td>
<td>90%</td>
</tr>
<tr>
<td>- Surroundings</td>
<td></td>
</tr>
<tr>
<td>- Reception on admission</td>
<td></td>
</tr>
<tr>
<td>- Response by nurses to call for help</td>
<td></td>
</tr>
<tr>
<td>* Inadequate information on orientation to ward procedures</td>
<td>80%</td>
</tr>
<tr>
<td>* No or limited information on illness</td>
<td>40%</td>
</tr>
<tr>
<td>* No or inadequate information on rationale for treatment</td>
<td>90%</td>
</tr>
</tbody>
</table>
4.1.2. DISCUSSION AND IMPLICATIONS

Clients were asked questions on areas considered important in ascertaining the appropriateness of the care they received. These questions sought views of clients on identified aspects of care. The following was elicited:

Biosocial Data:

Areas addressed were gender, marital status, age, education, occupation, race, religion and diagnoses of the sample population of thirty respondents.

There was no significant difference in gender representation, there being 17 males and 13 females whose average age was 35 years. There were more married clients than those who were single and divorced combined. Married clients demonstrated a much more positive attitude towards care than single clients, while the divorced clients had a negative perception of care given. It would appear, therefore, that family support influenced the clients’ perception of care.

Over 93% of the clients had formal education with less than 7% having had no education at all.
The majority of the clients were therefore literate. However, the various levels of education of the clients had no bearing on the clients’ perception of care, noting that none of them inquired about their illness. The notion that one’s level of education influences one’s awareness of one’s health status was therefore not supported in this instance. A comparison between perception of care and information given on illness, demonstrated that those who received information on illness had a more positive perception of care, suggesting that provision of information could improve the quality of care. That revelation was supported by the findings of Dr Evans B J (1987) study where he indicated that patients’ perception of the consultations were improved by any attempts by the doctor to improve cognitive and affective aspects of the interaction.

57% of the respondents were employed while 43% were not employed. The majority of both the employed and the unemployed considered the care good denoting that there was no significant difference in perception of care between the two groups and that occupation did not influence perception of care.

The dominant race was African with only one coloured and no European. The Catholic and Protestant were the dominant religious groups, followed by Pentecostal and then those who had no religion. Religion had no significant influence on perception of care amongst the Catholics and Protestants.
On the other hand, Pentecostal believers registered the highest degree of appreciation of the care given. The non-religion group also had a positive perception of care. It was therefore difficult to link religion and perception of care.

63.4% of the respondents had fractures of the tibia, fibula and femur, indicating high incidence of immobility, requiring partial and total nursing care. The knowledge of diagnoses helped to verify information given by clients.

Admission and Orientation into Ward:

The clients, on average, stayed in hospital for 25 days. They were therefore sufficiently acquainted to their environment and medical condition to be able to express an informed view on the care they were receiving. 80% of the clients were aware of what was happening on admission and 20% gained consciousness later. The client’s alertness was useful as they were able to provide accurate information about their observations. 86.6% stated that the reception was friendly and this was considered useful as that first impression had the potential to influence perception of care. Most clients were happy with the nurses’ public relations skill, whilst the few who did not agree also attributed their negative responses to the nurses’ public relations skills. 80% of the clients did not receive information on admission.
procedures. Lack of such information tended to introduce an element of neglect by the nurse and resignation by clients. This supported Dr Evans BJ’s earlier findings on influence of clients’ perception of care in relation to care providers’ ability to share information.

PERCEPTION OF QUALITY OF CARE:

56.7% of the respondents had been admitted to hospital before. The majority of these clients said that the care had improved supporting the fact that previous exposure to hospital care influences its perception. All the clients received visitors with 70% of them on a daily basis. There was evidence that strong family support for clients boosted the clients’ morale – 66.7% stated that the care was good and considered the nurses impeccable, 30% said the care was fair and alleged tardiness in having their requests attended to and rudeness on the part of nurse-aides, 3.3% of the respondents said the care was poor and the reason given was that the food was ‘horrible’. Although a tiny minority of clients were not satisfied with food, the finding pointed to the need for nurses to offer individualized care to cater for radically different individual nuances in the provision of care. The finding also tended to support Kramer M and C Schamlenberg’s study (1988) in which the patients felt that they were ‘special’ and that there was a ‘nurse’ looking after them.
Orientation to illness

60% of the respondents acknowledged that they were given information about their illness, 40% of the respondents said that they were not told anything. Of the 60% who received information, 83.3% of them got their information from doctors and 16.7% (3) from the nurses.

There was minimal interaction between clients and nurses. Kramer M and C Schamlenberg’s study stated that ‘90% of patient care, the hospital’s product, was determined by nurses’. It would appear, in light of the above statement, a review of the doctors role against that of the nurse in the interest of quality care is necessary especially considering that the nurses’ primary role is to provide care.

Verification of information held by clients against the written diagnoses showed a 100% consistency in the information given to clients by doctors and nurses. This demonstrated competence by nurses and the need for an increased role for them to give information to clients, especially given the doctor-client ratio against that of the nurse and client. In spite of the dominant role of the doctor which sometimes could be said to be paternalistic, the study revealed that the role of the doctor and of the nurse were complimentary. The notion of contradiction between the roles was dismissed by the fact that there was
consistency in information given by either party. Information dissemination for the benefit of the client should therefore be the responsibility more of the nurse than that of the doctor, given the time she spends at the client’s bed-side providing care.

Orientation to Treatment

65% of clients stated that nurses gave rationale for oral medication, injections, traction alignment and plaster of paris. On the other hand 96.6% of clients did not get rationale for observations (Blood-pressure, pulse, temperature), 70% for wound dressing and 56% for physical exercises. It was noted that in all instances where the procedures were the nurses’ dependent functions, the nurses were able to give clients the rationale for the procedure. These procedures were carried out by the nurse as ordered by the doctor. On the other hand, in all instances, where the procedures were the nurses’ independent function, the nurses rarely informed the clients on the rationale for their treatment.
Luckmann and Sorensen (1987) stated that "It is appropriate for nurses to perform dependent functions provided they do not neglect their own independent unique functions". In light of the foregoing it would appear the nurses were able to discharge dependent functions effectively and failed to fulfil their own independent function. That called into question the reliability of nursing care without the need for close supervision of the nurses. It would appear lack of standard tools to measure care was responsible for the irony that nurses were more effective in functions over which they had little authority and ineffective in functions over which they had full authority.

**Patient Satisfaction**

The respondents were sensitive about the dissemination of information of their health status to their relatives. In this regard, they demonstrated the highest, confidence in themselves to do the telling and in diminishing order the doctor, followed by the nurse. The degree of confidentiality attached to the clients' health status was heightened by the fact that some, albeit in a minority, did not have the will to divulge that information to anyone.
The clients were generally appreciative of the help they got from nurses regarding use of bed-pans, urinals, bed baths/assisted baths, change of bed-linen and change of pyjamas. 56.5% of the respondents did not need urinals, 20% did not need bedpans and 30% did not need bed-baths, that reduced the nurses' work-load. The 33.3% who did not need pyjamas relieved pressure on the need for hospital pyjamas. The 66.7% who did not have pyjamas could not afford them and that was attributed to their poor-socio-economic background, given that 43% of them were not employed.

Sensitivity to Pain Control and other discomforts

90% of the clients stated that nurses responded promptly to their call for pain-relief and 10% of the clients alleged that nurses were not responsive to their requests for help. 67% of the clients were worried about their absence from home, their financial problems and slow recovery. 20% of these discussed their concerns with nurses. The 80% who did not discuss their problems were not aware of the counselling role of the nurse.

Respondents were completely satisfied with the interactional skills of nurses, the way the nurses administered drugs and the manner in which they provided care. When asked what aspects of care they found most unsatisfactory, 43% of the respondents maintained that they were satisfied with all aspects of care. 57% of the respondents, however, said that they were not
satisfied with technical competence, communication skills and attitude. It was noted that the areas mentioned as satisfactory were again cited as the ones needing the most attention. There was no conflict in perception of care by the respondents. Rather the respondents were emphasizing the importance they attached to the nurses' interpersonal skills, technical competence and attitude. The variations in responses underscored the extent of the problems associated with measuring patient satisfaction. Blaney C L (1993) attributes the difficulty of measuring patient satisfaction to, "the problems of over generalization and respondent courtesy bias".

4.2 Analysis of Data from the Nurses

SECTION I
WARD SETTING AND BIOGRAPHIC DATA

1. Table I

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>FEMALE</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>MIXED MALE/FEMALE</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>N =</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

There was an equitable sample population distribution of nurses from the three wards.
1.1 Statement (1b)

Present bed capacity.

The average capacity for the three wards was 30. Considering that the carrying capacity of a ward is 30, this demonstrated that wards were full and requiring maximum attention of nurses.

1.2 Statement (1c) Table 2

Present number of staff.

<table>
<thead>
<tr>
<th>DESIGNATION</th>
<th>AVERAGE NO. OF STAFF FEMALE WARD</th>
<th>AVERAGE NO. OF STAFF MALE WARD</th>
<th>AVERAGE NO. OF STAFF MIXED WARD</th>
<th>TOTAL</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTERED NURSES</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>STATE CERTIFIED</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>STUDENT NURSES</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>NURSE-AIDES</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

N = 9

Although one respondent did not give information, it would appear the differences in the deployment of staff in the various wards were prompted by a need to cater for client turn-over per ward. The average deployment figures do show a deliberate drive at maintaining equitable distribution of staff.

2. Statement 2

Gender: all respondents were females.
3. Table 3(a) Address age, marital status, general and ward experience covering statements 3, 4, and 6. The comment includes statement 5.

<table>
<thead>
<tr>
<th>AGE</th>
<th>NO.</th>
<th>%</th>
<th>MARITAL STATUS</th>
<th>NO.</th>
<th>%</th>
<th>GENERAL EXPERIENCE</th>
<th>NO.</th>
<th>%</th>
<th>WARD EXPERIENCE</th>
<th>NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 yrs</td>
<td>1</td>
<td>10</td>
<td>MARRIED</td>
<td>8</td>
<td>80</td>
<td>0-5 yrs</td>
<td>4</td>
<td>50</td>
<td>0-6 months</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>25-30 yrs</td>
<td>4</td>
<td>40</td>
<td>WIDOWED</td>
<td>1</td>
<td>10</td>
<td>6-11 yrs</td>
<td>3</td>
<td>37.5</td>
<td>7-12 months</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>31-40 yrs</td>
<td>3</td>
<td>30</td>
<td>SEPARATED</td>
<td>1</td>
<td>10</td>
<td>11 &amp; above</td>
<td>1</td>
<td>12.5</td>
<td>13-24 months</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>41-50 yrs</td>
<td>2</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>25 &amp; above</td>
<td></td>
<td></td>
<td>N = 10 100</td>
<td>N = 10 100</td>
<td></td>
</tr>
</tbody>
</table>

The average age of the respondents was 32 years, denoting a vibrant group of workers.

80% of the respondents were married, 10% widowed and 10% separated.

90% (9) of the respondents were General nurses and 1% was a state-certified nurse. 30% (3) of the respondents had a post graduate Diploma in Midwifery and 10% (1) had a Diploma in Nursing Administration.

Two respondents did not provide information on general experience. 50% of the respondents had less than 5 years of working experience.
40% of the respondents had worked in the ward for less than 6 months, another 40% had worked for more than a year but less than 2 years and 20% had worked for more than 2 years. The respondents were exposed to the wards for reasonable periods to be able to describe their perception of care.

7. **Statement 7**

From a list of speciality wards, which do you prefer practicing in?

<table>
<thead>
<tr>
<th>Speciality</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>0%</td>
</tr>
<tr>
<td>Surgical</td>
<td>50%</td>
</tr>
<tr>
<td>Orthopaedic</td>
<td>20%</td>
</tr>
<tr>
<td>Community</td>
<td>10%</td>
</tr>
<tr>
<td>Paediatric</td>
<td>10%</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>10%</td>
</tr>
</tbody>
</table>
7.1 Reason for Ward Choice

7.1.1. Table 3(b)
Orthopaedic

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy orthopaedic nursing</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>I get closer to clients</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>N =</td>
<td>5</td>
<td>100</td>
</tr>
</tbody>
</table>

7.1.2. Surgical
20% (2) of the respondents stated that surgical wards were orderly unlike orthopaedic wards, where traction and other accessories were all over the place.

7.1.3. Gynaecology
The respondent stated that she would like to specialize in gynaecological nursing.

7.1.4. Paediatric
The respondent stated that she was interested in children.

7.1.5. Community
The respondent stated that she was interested in the rehabilitation of clients.
80% of those who preferred to work in orthopaedic wards, had worked in the ward for over a year and only 20% under one year.
100% of those who preferred to work in other wards had worked in the orthopaedic wards for less than one year. This tended to suggest that long periods of exposure in a ward had the effect of increased appreciation for the ward. However, as this was an orthopaedic ward where clients tended to stay longer for treatment, nurses would normally want to oversee the progress of their clients in furtherance of individualized care.

8. Statement 8
Were you oriented to this ward policy.
70% (7) of the respondents said they were oriented to the ward policy and 30% (3) said they did not get any orientation.
8.1. Table 3c

If yes, indicate degree of importance attached to the following.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>VERY IMPORTANT</th>
<th>IMPORTANT</th>
<th>NOT SO IMPORTANT</th>
<th>NOT IMPORTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO.</td>
<td>%</td>
<td>NO.</td>
<td>%</td>
</tr>
<tr>
<td>Patients reports</td>
<td>9</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients' contact</td>
<td>8</td>
<td>88.8</td>
<td>1</td>
<td>11.1</td>
</tr>
<tr>
<td>Admission procedure</td>
<td>5</td>
<td>55.5</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>Discharge procedure</td>
<td>5</td>
<td>55.5</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>Uniform attire</td>
<td>5</td>
<td>55.5</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>On and off duties</td>
<td>7</td>
<td>77.7</td>
<td>3</td>
<td>33.3</td>
</tr>
<tr>
<td>Meals</td>
<td>4</td>
<td>44.4</td>
<td>5</td>
<td>55.5</td>
</tr>
<tr>
<td>N = 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One respondent did not provide information. Matters directly related to the patients' welfare had the highest weighting, suggesting that nurses were aware of areas of emphasis and the importance of writing reports and communicating with patients' relatives in the dispensation of care. The special importance of the on and off duty roster is also reflected in the responses, and this indicates the need for the nurse to plan her activities outside the ward to minimize conflict of interest.
9. **Statement 9**

Is there a procedure manual in the ward?

40% (4) of the respondents said there was a procedure manual in the ward and 60%(6) said there was none.

9.1. **Table 4**

How many times in the last month have you referred to the procedure manual?

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT APPLICABLE</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>NIL</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>ONCE</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

N = 10

10% (1) of the respondents referred to the procedure manual in the last month.

9.1.2. **Statement 9**

What is it that you were looking for in the procedure manual?

The one respondent who referred to the procedure manual said she was looking for the care of a patient with a cervical fracture in the first 48 hours.

9.1.3. **Statement 9 (a)**

Did you find the procedure manual helpful?

The respondent who referred to it found it helpful.
9.1.4. **Table 5**

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>No information provided</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>I have never had an opportunity to use it</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>The manual is outdated</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>10</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

90% of respondents did not use the procedure manual for the reasons that 60% were not aware of its existence and 30% did not think it was relevant. On the other hand one respondent found the manual useful.

**Work-load**

10. **Table 6**

What is the average nurse-patient ratio at any given time in this ward? Indicate number of nurses.

<table>
<thead>
<tr>
<th>SHIFT</th>
<th>TOTAL NO. FROM THE THREE WARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORNING SHIFT</td>
<td>36</td>
</tr>
<tr>
<td>AFTERNOON SHIFT</td>
<td>35</td>
</tr>
<tr>
<td>SPLIT-OFF SHIFT</td>
<td>22</td>
</tr>
<tr>
<td>NIGHT DUTY</td>
<td>29</td>
</tr>
<tr>
<td><strong>TOTAL OF FOUR SHIFTS</strong></td>
<td><strong>122</strong></td>
</tr>
</tbody>
</table>

Average No. of nurses available per shift: \[
\frac{122}{4} = 3 \text{ nurses.}
\]

Nurse-Patient ratio = \[
\frac{3}{30} \text{ (total bed capacity)} = 1:10
\]
Zimbabwe adopted the New Castle and Scottish formula for staffing. The formula recommends that 20 nurses be responsible for 30 clients in an orthopaedic ward. That is to say one nurse is responsible for no more than two clients. The nurse-patient ratio in the above wards is such that nurses are overstretched.

11. Table 7

Given the total number of patients, about how many patients at any given time require:

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL CARE</td>
<td>9</td>
</tr>
<tr>
<td>PARTIAL CARE</td>
<td>16</td>
</tr>
<tr>
<td>SELF-CARE</td>
<td>5</td>
</tr>
<tr>
<td>N = 5</td>
<td></td>
</tr>
</tbody>
</table>

Responses from five respondents were not complete. Most clients, constituting 50% required care ranging from partial to total. Nurses had therefore to work extra hard to help those clients who could not care for themselves. This became particularly burdensome given that on average one nurse had to attend to 10 clients.
12. Table 8
What is your view of the present nurse-patient ratio, given the work-load of the ward?

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY ADEQUATE</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>MINIMALLY ADEQUATE</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>INADEQUATE</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>GROSSLY INADEQUATE</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td>10</td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The overwhelming number of nurses felt they were overworked.

12.1 Table 9
Give reasons for your answer.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No information provided</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>One nurse on duty cannot give the necessary care to 30 patients</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>The majority of clients need to be assisted with activities of daily living</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>

The nurse/client ratio was not conducive for the deliverance of personal care to the clients. This tended to frustrate the desire of the nurse to deliver personal care.
13. **Statement 13**

Is there a duty allocation roster?

100% of the respondents said there was an allocation roster. This is useful because the duty roster sets the pace of activities in the ward and important because the activities are task oriented.

13.1. **Statement 13 (b)**

Are you consulted before duty roster is written?

50% of the respondents said they were consulted and 50% said they were not consulted.

13.1.1 **Table 10**

If not consulted, does it affect your performance?

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>NO</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>NO INFORMATION RECEIVED</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

N = 10 100
13.1.2. Table 11

Reasons, if it affects performance.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reason</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Psychologically one is affected by doing a duty you do not enjoy</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>A neglected request is demoralising</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>5</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

60% of respondents felt that they were not being involved in the planning of duties, this adversely impacted on commitment to duty.

13.1.3. Table 12 Reasons, if it does not affect performance.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are always short staffed such that you come on duty prepared to do anything</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>I am prepared for any duties required of me as long as they pertain to patient care</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>4</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Those whose performance was not affected understood the stress under which their supervisor worked, citing overwhelming work.
13.2 Table 13

How often are tasks changed?

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAILY</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>WEEKLY</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>FORTNIGHTLY</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>N =</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Tasks were frequently changed, with 80% of them being effected on a daily basis. Since care is task oriented, this provided the necessary variety and challenge that makes work more interesting.

CLIENT ORIENTATION

14. Table 14 Addressed orientation on admission, the information given and the provider of the information.

<table>
<thead>
<tr>
<th>ON ADMISSION TO WARD DO PATIENTS RECEIVE ORIENTATION</th>
<th>WHAT INFORMATION ARE THEY GIVEN</th>
<th>WHO GIVES THE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPONSE No. %</td>
<td>COMMENT</td>
<td>PROVIDER No. %</td>
</tr>
<tr>
<td>Always 4 50</td>
<td>Visiting times 8 80</td>
<td>Nurse-Aides 6 60</td>
</tr>
<tr>
<td>Sometimes 5 50</td>
<td>Meal times 3 30</td>
<td>Student nurse 7 70</td>
</tr>
<tr>
<td>Never 1 10</td>
<td>Geography of ward 6 60</td>
<td>Certified Nurse 6 60</td>
</tr>
<tr>
<td></td>
<td>Procedures to be done 2 20</td>
<td>Registered Nurse 9 90</td>
</tr>
<tr>
<td></td>
<td>Listing of valuables 2 20</td>
<td></td>
</tr>
<tr>
<td>N = 10</td>
<td>N = 10</td>
<td>N = 9</td>
</tr>
</tbody>
</table>

Those who oriented clients were 90% (9) and those who never did were 10% (1)
There is one respondent who said she never oriented clients and gave shortage of staff as a reason. Of the 90% who oriented clients, 100% of them preferred working in orthopaedic wards. 20% of those who preferred working in other wards said clients never got orientation. That depicted the extent to which polarization of interest influenced perception of care.

Respondents attached more importance to information relating to visiting times and geography of ward, than they did for meal times, procedures to be done and kitting of client’s valuables.

One respondent did not provide information regarding the category of nurses who provided information. The consensus was that any nurse was qualified to give information. However, the respondents appeared to favour the General Nurse with the responsibility to give such information. This denoted the degree of importance attached to one’s responsibility.

15. **Statement 15**

Do patients receive information on their illness? 100% of the nurses stated that they gave information to the clients.
15.1 Statement 15 (b)

If no, give reasons for your answer.
100% gave information.

15.2 Statement 15 (c)

If yes, who gives the information?
90% of the respondents said the doctor gave information on illness whilst 10% felt the nurse used her discretion to give information. Doctors had the dominant role of providing information on illness to clients. This emphasized the dependent role of the nurse in the bio-medical model which is the framework currently in use.

16. Statement 16

Do patients receive information on their treatment?
100% of the nurses stated that patients receive information on their treatment.
If yes, what information is given?

<table>
<thead>
<tr>
<th>INFORMATION GIVEN</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of drug treatment</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Side effects of drugs</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Reasons for treatment</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Prognosis</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Length of stay in hospital</td>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>

N = 9

One respondent did not provide information. The information that was given related to the nurses’ dependent function. It appeared the nurses did not regard as important, information which related to their unique independent function.

PERCEPTION OF QUALITY OF CARE

17. Statement 17
What system of reporting patients’ condition do you use in your wards?
90% of the respondents used the Kardex system in conjunction with bedside and verbal reports. Of these 60% used the Kardex system only.
17.1 Statement 17 (b)
Are you satisfied with this reporting system?
90% of the respondents who used the Kardex system in conjunction with verbal and bed-side reports were satisfied with the reporting system, while 16.3% (1) of the 60% who used the Kardex system were not satisfied.

17.1.1 Table 16
Reasons for choosing bed-side reports.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is adequate</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>You see and communicate with the patient</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>It is informative of the condition of the patient and it is easier to write about a procedure carried out soon after at the bedside</td>
<td>3</td>
<td>60</td>
</tr>
</tbody>
</table>

| N | 5 | 100 |

The respondents communicated directly with clients as they recorded activities carried out and that afforded them accurate information about the clients' health status.

17.1.2 Table 17
Reasons for choosing verbal reports.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is a quick way of handing over</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>It is adequate</td>
<td>1</td>
<td>50</td>
</tr>
</tbody>
</table>

| N | 2 | 100 |

This was a quick way of handing over information about clients' health status to another nurse who could always verify that information with the Kardex report.
17.1.3 Table 18

Reasons for using the Kardex.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Kardex informs on the orders carried out and those to be carried out</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>You get the full picture of what is happening</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Written report is a permanent record and a legal document</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>No reason given</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The Kardex system is not only informative but is a permanent record whose contents are legally binding, and protect the interests of both nurse and client.

17.2 The one respondent who was not satisfied with the Kardex reporting system, cited the inherent potential for nurses to overlook the condition of the client.

18. Statement 18

Do you have ward-meetings in which you discuss the quality of care or issues related to nursing care?

50% (5) of the respondents stated that they have ward meetings and 50% (5) said they do not have them. Of the 50% who said that
there were no meetings, 60% of them were those who had indicated preference for wards outside orthopaedics. This would appear to reveal a case of polarization of interest.

18.1 Table 19
If yes how many times are meetings held?

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once in two months</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Once a month</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Twice a month</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Occasionally when the</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>situation allows</td>
<td>N = 5</td>
<td>100</td>
</tr>
</tbody>
</table>

of the 50% who held meetings 40% held them on a regular basis with the remaining 60% as and when the situation allowed.

18.2. Statement 18 (c)
Are the topics discussed during the meeting relevant to your practice?
100% of those who held meeting found them useful.

18.3. Statement 18 (d)
Who attends these meetings?
of those who held meetings, 80% said all grades of nursing attended meetings with the remaining 20% saying that only the registered nurses attended the meetings.
18.4. Statement 18 (e)
If not, are you satisfied with the way things are?
of the 50% who said no meetings were held 80% (4) stated that
they were not satisfied with the status quo and 20% (1) did not
comment.

18.4.1. Table 20
Explain your answers.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No information</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>The shortage of staff does not allow time for meetings.</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Problems at ward level remain unsolved</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>This is a teaching hospital where students are supposed to be assisted with the practice of nursing</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

N = 5 100

The consensus among respondents who said that there were no
meetings was that, the work load did not make it possible to
convene such meetings. However, they regarded meetings important
noting that these improved interpersonal relationship and
assisted students in the practice of nursing.
19. Table 21

In your view which is the most important item which makes a difference in quality of care that is provided in the unit?

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide adequate staff and improve nurse-patient ratio and provide equipment</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Team spirit, dedication to duty and efficiency</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Sister-in-charge should have a diploma in the field of practice</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Provision of adequate human and material resources had precedence over other considerations.

19.1.1. Table 22

Elaborate your answer.

For provision of adequate staff and equipment.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is difficult to carry out some procedures because of lack of equipment</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>There is no total patient care due to shortage of staff</td>
<td>2</td>
<td>33.3</td>
</tr>
<tr>
<td>Creates opportunity for refresher courses</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td><strong>N =</strong></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Adequate staff would reduce workload, improve nurse-client relationship, make opportunity for meetings and workshops.
Table 23

Team-spirit, dedication to duty and efficiency.

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>People cooperate and work together</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>Lack of commitment is evident</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>Everyone is willing to work and procedures are done on time</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>N</td>
<td>3</td>
<td>100</td>
</tr>
</tbody>
</table>

It would appear that although team-spirit and dedication to duty would result in increased efficiency, there is a limit to which such attributes would be put in an environment devoid of requisite personnel and equipment.

19.1.3. Statement (19.1.3)

Sister-in-charge should have a diploma in the field of practice. The one respondent who mentioned the need for training stated that, if the sister-in-charge is trained, she can teach her subordinates effectively.

It would appear that while this thought is useful it can not be realized where the environment is too concerned with looking at the clients' needs to the detriment of those of the nurses.
SECTION III

SENSITIVITY TO PATIENTS’ PAIN CONTROL OR OTHER DISCOMFORTS AND PATIENT SATISFACTION

20. Table 24

What are some of the major complaints you receive from patients?

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>RESPONDENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor diet</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Delay in getting attention in general</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Inadequate pain-relief</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>N = 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The nurses cited lack of satisfying the physiological needs of the clients as forming the bulk of the complaints made by the clients.

20.1. Statement 20 (b)

Have you been able to discuss these complaints with the patient? 90% (9) of the respondents said that, they were able to discuss the complaints with patients, 10% (1) said that she did not discuss with the clients. The readiness by nurses to discuss complaints with clients showed that they took these complaints seriously.

20.1.1. Statement 20 (c)

If not, give reasons for your answer.

The one respondent who did not discuss with the clients stated that, there was no time, especially when one nurse reports on duty.
It would appear, while it was agreed that the workload for nurses was heavy, it was regrettable that the nurse could not find time to discuss a very important issue which had potential to destroy the image of the nurse as well as the profession.

20.1.2. Statement 20 (d)
Do you receive letters of complaints from patients post discharge?
80% of the respondents said they never received any letters of complaints and 20% stated that they sometimes received them.

The occasional and far between incidence of receiving complaints from discharged clients illustrated the nurses’ ability to handle complaints by clients.

20.2.1. Table 25
If you do how have you handled such complaints?

<table>
<thead>
<tr>
<th>COMMENT</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The complaints appear in newspapers and not directed to ward sisters</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>No information provided</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>N =</td>
<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>

It would appear that the failure by complainants to direct their complaints at the ward sister showed that the complaints were not serious or that the complainants were not aware of their right to air their views to the hospital staff.
21. **Statement 21**

Does the ward sister have a system of establishing contact with patients' relatives.

90% (9) of the respondents stated that there was a system of contacting relatives and one respondent did not provide information.

21.1. **Table 26**

If yes, explain how the ward maintains the contact.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next of kin and home address</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Telephone</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Talk to relatives during visiting hour</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>The nearest police station if relatives are not on the phone</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>No information</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

N = 10

The ward used various means open to them to maintain contact with the clients' relatives. This showed a high degree of initiative and concern for the welfare of clients.

22. **Statement 22**

Do you get rewards from patients?

90% of the respondents stated that they sometimes get rewards from clients. One respondent did not provide information.
There was appreciation for the work done by nurses. Gestures such as rewards and presents are only made when clients felt that the services they got were exceptionally good. This is significant considering the nurse’s workload.

22.1 Statement 22(b)
Do you get thank-you cards/letters from patients? 80% of the respondents stated that they sometimes got thank-you cards and 20% said they often got the cards. This showed appreciation for the work done by nurses.

22.2 Statement 22(c)
Please give a summary of the quality of care which you truly believe patients in your ward receive.

100% (10) of the nurses stated that the best care is not being provided because of shortage of staff. The nurses perception of care was that they were not able to provide the best care because of shortage of staff.
The Table below summarizes the findings of the proceeding discussion.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation of Clients on Admission to ward</td>
<td>90%</td>
</tr>
<tr>
<td>Information Given to Clients About the Rationale for their treatment</td>
<td>100%</td>
</tr>
<tr>
<td>Poor Nurse Patient ratio - 1 nurse to 10 patients</td>
<td>100%</td>
</tr>
<tr>
<td>Information given to clients on their illness</td>
<td>100%</td>
</tr>
</tbody>
</table>
DISCUSSION AND IMPLICATIONS

A hospital setting comprising of the ward, bed capacity and staff compliment constituted the structural framework of the study. Nurses were asked questions on matters considered important in ascertaining the appropriateness of the care they provided to clients. The views that the nurses expressed were indicative of their perceptions of the care they rendered to the clients. An evaluative examination of the views appears in the discussion set out below.

Biosocial Data

The biosocial data included gender, age, marital status, qualifications and years of experience of the nurses. A total nurse sample of 10 covered three wards with an average bed capacity of thirty each. The wards were full, and the sample as well the staff distribution were equitably done to ensure that work was evenly distributed in the three wards.

Gender, Age and Marital Status

All respondents were females. Their average age was 32 years. 80% (8) were married, 10% (1) widowed and 10% (1) separated. The average age of clients was 35 years. 57% were married, 33% were single and 10% were divorced. The nurses and clients were contemporaries with their age and marital status, alluding a comparable pattern. Although there were differences in gender in the client sample, that did not appear to influence the clients' views on care-given.
Most orthopaedic clients required total or partial care necessitating the need for nurses to lift clients. Males are more muscular than females. It would appear necessary to review placement along gender where the physical aspect of the work is strenuous.

Work Experience

90% (9) of the respondents were General Nurses and 10% (1) a state-certified nurse. 50% of the respondents had less than five years of working experience and the remaining 50% had more than five years of experience.

Ward Experience

40% of the respondents had worked in the wards for less than six months, another 40% for more than a year and 20% for more than two years. The respondents had worked in the wards long enough to be able to express their opinion on the care they gave.

Respondents were asked what the areas of work preferences were. 80% of those who preferred to work in orthopaedic wards had worked in the wards for over a year and 20% had worked in the wards for less than a year. It appeared that exposure to the ward environment and the long periods spent by clients in the ward influenced the interest of the nurses.
That interest stimulated motivation towards work as stated by Knowles M(1980) in his principles of Androgogy.

70% (7) of the nurses were oriented to the ward policy and 30% (3) stated that they did not get any orientation. Matters directly related to the patients' welfare were considered very important during orientation, suggesting that nurses were aware of areas of emphasis and the importance of reports and communication with clients' relatives in the provision of care.

40% (4) of the respondents said there was a procedure manual in the ward and 60% (6) said there was none. 10% (1) had used the manual in the last month and found it useful. The use to which the procedure manual was put was not clear. It would appear its existence and importance had not been brought to the attention of the respondents who would have otherwise benefited from using it. As such manual is a guiding reference handbook, it would be useful to analyze the compatibility of its contents, noting that 90% of the respondents did not use it. This is particularly important in a Teaching Hospital as is the case with Parirenyatwa Hospital.
Work-load

The average nurse-patient ratio during any shift was one nurse attending to ten clients. The recommended ratio of one nurse to two clients in orthopaedic wards is stipulated in the New Castle formula for staffing and was adopted by Zimbabwe. The nurse-client ratio fell far below that cited in the formula. That situation had serious implications for the nurse, who had to establish a personal relationship with the client, maintain technical standards and generally project a good image of care given. The nurse had the duty not only to maintain the quality of care but also to improve it, in a situation where the nurse-client ratio had potential to undermine quality of care.

Nurses stated that 9 clients required total care, 16 clients partial care and 5 clients managed self-care. The constraints posed by the nurse-client ratio made it difficult for the nurses to provide comprehensive care. 100% of the nurses stated that, they were overworked and that had the effect of frustrating their desire to provide care.

100% of the respondents said there was an allocation roster, 50% stated that they were consulted in the allocation of duties while the other 50% said that they were not consulted. Given the task-oriented nature of providing care, the allocation roster set the pace for daily activities. 60% of the respondents were concerned that lack of consultation in duty allocation undermined their
commitment to duty and affected their performance. 40% of the respondents whose performance was not affected said that they appreciated that the pressure exerted by shortage of staff did not always make it possible for them to ask for personal favours. 80% of the respondents who said that tasks were changed daily were happy with that arrangement as it provided the necessary variety and challenge that made their work more interesting.

Client Orientation

90% of the nurses stated that they oriented clients on admission. The one respondent who said she never oriented clients, said that the shortage of staff was the limiting factor. The information given in diminishing order of importance was visiting times, geography of ward, meal times, procedures to be done, and listing of valuables. The responsibility of giving information was shared by all nurses, but more responsibility was given to the General Nurses.

100% of the respondents stated that clients received information on their illness: 90% (9) said that the doctors gave the information whilst 10% (1) of the respondents said that nurses used their discretion to provide information.
It would appear, the nurses assumed that, the clients received information from doctors, as only one respondent said the nurse gave information. That confusion emphasized the dependent role of the nurse in the bio-medical model, in which the nurse is portrayed as a willing tool of the doctor and the reluctant partner in the deliverance of care.

100% of the respondents said that they gave information on the rationale of treatment given to clients. The information that was given related to the nurses' dependent function. It appeared that nurses underrated information which related to their unique independent function. It was noted that nurses were more cure oriented than they were care-oriented and that revelation underscored the nurses' subservient role.

Perception of Quality of Care

90% of the respondents said that they documented care using the Kardex system, of these 60% used the Kardex system only. The remaining 30% used the Kardex system in conjunction with the bedside and verbal reports. 10% of the respondents said they used the bed-side reports only. 100% of the respondents who used the Kardex system expressed satisfaction with the method citing the method's informativeness and permanence. The crucial role of documentation of care was collaborated in findings made by Christie J (1993) in the study "Quality documentation". The one
respondent who was not satisfied with the Kardex reporting system cited the inherent potential of the nurses to overlook the condition of the client. While the dissatisfaction was expressed by a minority of the respondents, the reason given for the dissatisfaction was important. It would appear the Kardex system can suffer the above mentioned fate if it is not supported by the bedside and verbal reporting systems.

50% of the respondents stated that they held ward meetings, while the other 50% said that they did not. Of the 50% who said that they did not hold meetings, 60% of them were those who had indicated preference for wards outside orthopaedics. That appeared to portray a case of polarization of interest as found in the principle of androgogy which postulates that adult function best in their area of interest, Knowles M (1980) refers.

100% of those who held meetings said that the meetings were relevant and useful. The consensus among respondents who said that there were no meetings was that, the workload did not make it possible for them to convene such meetings. They were agreed, however, that the meetings were important in ironing out personal differences, improving interactional skills, assisting students in the practice of nursing care and giving opportunity for continued education. Sally Van Tonder’s article (1992) stated that, "Nurses are entitled to effective in-service training and a recognition of their need for continued education."
60% of the respondents stated that provision of adequate human and material resources could improve care and reduce workload. 30% of the respondents felt that team-spirit and dedication to duty would improve care and increase efficiency and 10% said that the sister-in-charge would need to have a diploma in her field of practice to enable her to teach subordinates effectively.

Client Satisfaction

The physiological needs of clients were identified by nurses as constituting the bulk of the clients’ complaints. 90% of the respondents said that they discussed the complaints with clients, while 10% said that they did not. It was significant that 90% of the respondents attended to the complaints of the clients, not withstanding their "busy" schedule as claimed by the 10% who did not attend to the clients’ complaints. 80% of the respondents said that they never received complaints from clients who had been discharged. As only 20% of the respondents sometimes received complaints, that lent support to the nurses’ assertions that they tackled the clients’ complaints. Those who said they received complaints, stated that the complaints were not directed to them but appeared in newspapers. It appeared that the clients were not aware of their right to air their concerns to the hospital staff.
90% of the respondents stated that there was a system of contacting clients’ relatives and cited various means of doing so. The initiative of the nurses showed their concerns for the welfare of the clients.

100% of respondents said that they sometimes received appreciation of work done from clients in the form of thank-you cards and rewards. That was significant, given the volume of work, that nurses had to confront.

100% of the respondents stated that the best care was not being provided because of shortage of staff. The shortage of staff was not disputed as that scenario is common in hospital institutions all over the world. In the Netherlands, for example, Giebing (1994) stated that, "nursing staff is being cut" due to political considerations, in spite of there being shortage of nurses. That compared well with the local scene, where the Government of Zimbabwe stopped employing nurses and froze the existing posts (1994). Sally Van Tonder (1992) in her article, "The Rights of Nurses", stated that the nurses have a right to expect the hospitals to employ enough nurses to ensure quality nursing care and that, "it is unacceptable for nurses to pretend that they can cope with their workload when in fact they cannot do so", but added that, "nurses must bear in mind that personnel can only be provided within the limitations of available posts".
The respondents' perception of care appeared to be premised on the erroneous belief that adequate staff necessarily led to increased levels of competence, improved care, and improved perception of care. Nurses appeared to use doctors' eyes to perceive care. They were thorough in implementing doctors' orders and were able to fulfil an important, albeit, dependent function. On the other hand, they failed to put their stamp on those aspects of care which were their speciality. If the workload adversely impacted on the nurses' performance it could be argued that the nurses' management of time also adversely affected their performance. If they found time to execute the doctors' orders, they were expected also to have found time to fulfil their unique role as nurses. Their failure to do so, appeared to indicate a desire on their part to vindicate a system where they were servants and to denigrate a system over which they were masters. The role of the nurse as an independent functionary would need to be revisited to reinforce attitudes that uphold independence and a sense of responsibility.

As the respondents' perception of care appeared to be based on their requirement to carry out the doctor's order, such perception invariably made them outsiders in their own game. It is therefore not surprising, that, the only reason nurses could think of in saying that the best care is not being provided was attributed to their mismanagement of time which they appeared to
conveniently call "shortage of staff" and their failure to fulfil their independent functions, which they also called, "shortage of staff". It would appear that a case exists to verify if nurses are not their own detractors and what strategies could be put in place to make a nurse a more independent professional. To support this sentiment, Sally Van Tonder (1992) stated that, "nurses are entitled to the necessary level of authority appropriate to the level of their responsibility within their profession."

It would appear nurses need to be told that theirs is a profession, just like medicine, where the specialist skills they have would need to be utilized in a professional way. The Master servant relationship between doctor and nurse need to be changed to that of builder and carpenter. The subservient role need to be changed to a complimentary one, where nurses have to direct and manage their functions, if they are to enjoy a sense of importance and achievement.
## TABLE III
**COMPARATIVE VIEWS HELD BY NURSES AND PATIENTS ON KEY ASPECTS OF CARE**

The Table below gives comparative views held by nurses and clients on key aspects of care.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>CLIENTS (RECEIVED)</th>
<th>NURSES (GAVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 30</td>
<td>N = 10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>INFORMATION ON ILLNESS</td>
<td>18 60</td>
<td>10 100</td>
</tr>
<tr>
<td>ORIENTATION TO PROCEDURE</td>
<td>6 20</td>
<td>9 90</td>
</tr>
<tr>
<td>INFORMATION ON RATIONALE FOR TREATMENT - OBSERVATION (TEMPERATURE, PULSE, AND BLOOD PRESSURE)</td>
<td>1 3.3</td>
<td>10 100</td>
</tr>
<tr>
<td>CLIENTS’ CONCERN DISCUSSED</td>
<td>6 20</td>
<td>9 90</td>
</tr>
</tbody>
</table>

There was no congruency between the views held by clients and those by nurses in relation to orientation to hospital procedures, information on illness, treatment and discussion of clients' concerns.
It is an established fact that the delivery of nursing care is not systematic. In light of this, a number of assumptions could be advanced to explain the apparent lack of consistency of views held by the nurses and the clients. For instance: nurses giving information to clients who were in a state in which they were least prepared to absorb it; nurse assuming that clients understood them when they did not; nurses could have known what to tell the clients but did not and assumed that the client knew; clients were not aware of their right to information and did not assert that right.

The incongruency could also be explained by the fact that during the process of care the nurse oriented the client to procedures, illness and treatment, whereas during the outcome of care the clients gave a value assessment utilizing their own perception and attitudes to describe care. The outcome of care thus became more important in that it projected the clients’ views on the care they received.
4.4 Findings from the Checklist

1. Present Ward Capacity

There was an average of 23 clients from the three wards. The number of clients in the wards flactuated and this can either increase or decrease workload. It is therefore not possible to support a case for increase in staff on the basis of work-load experienced at a particular time.

2. Staff on Duty

Table 1

<table>
<thead>
<tr>
<th>STAFF</th>
<th>AVERAGE No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL NURSES</td>
<td>6</td>
</tr>
<tr>
<td>CERTIFIED NURSES</td>
<td>1</td>
</tr>
<tr>
<td>STUDENT NURSES</td>
<td>6</td>
</tr>
<tr>
<td>NURSE AIDES</td>
<td>5</td>
</tr>
</tbody>
</table>

The researcher was able to verify the staff situations as stated above.
### Table 2

#### EQUIPMENT

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AVERAGE No. AVAILABLE</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometers</td>
<td>30</td>
<td>Each patient had own thermometer</td>
</tr>
<tr>
<td>Bedpans</td>
<td>10</td>
<td>Cleanliness indicated by appearance and lack of odours. Bedpans were clean.</td>
</tr>
<tr>
<td>Urinals</td>
<td>14</td>
<td>Clean</td>
</tr>
<tr>
<td>Bedpan basin</td>
<td>13</td>
<td>Clean</td>
</tr>
<tr>
<td>General Environment</td>
<td>-</td>
<td>Clean</td>
</tr>
<tr>
<td>Sphygomanometer</td>
<td>1</td>
<td>In working condition. The other was under repair.</td>
</tr>
<tr>
<td>Stethoscope</td>
<td>1</td>
<td>In working condition.</td>
</tr>
<tr>
<td>Wheelchairs</td>
<td>4</td>
<td>In working condition.</td>
</tr>
<tr>
<td>Fracture boards</td>
<td>2</td>
<td>Available and adequate</td>
</tr>
<tr>
<td>Monkey chains</td>
<td>20</td>
<td>Available and adequate</td>
</tr>
<tr>
<td>Air-rings</td>
<td>9</td>
<td>Available and adequate</td>
</tr>
<tr>
<td>Drip-stands</td>
<td>4</td>
<td>Available and adequate</td>
</tr>
<tr>
<td>Pillows</td>
<td>68</td>
<td>Available and adequate</td>
</tr>
</tbody>
</table>

#### 4. SUNDRIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AVERAGE No. AVAILABLE</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traction kit</td>
<td>1</td>
<td>Ordered per patient</td>
</tr>
<tr>
<td>Slings</td>
<td>11</td>
<td>Ordered per patient</td>
</tr>
<tr>
<td>Orthopaedic Wool</td>
<td>26</td>
<td>Available</td>
</tr>
<tr>
<td>Plaster of Paris</td>
<td>66</td>
<td>Available</td>
</tr>
</tbody>
</table>
5. STATIONERY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AVERAGE No. AVAILABLE</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment charts</td>
<td>Not available</td>
<td>Out of stock</td>
</tr>
<tr>
<td>Temperature charts</td>
<td>Available</td>
<td>--</td>
</tr>
<tr>
<td>Kardex</td>
<td>Not available</td>
<td>Out of stock</td>
</tr>
<tr>
<td>Intake and output charts</td>
<td>Available</td>
<td>--</td>
</tr>
</tbody>
</table>

The researcher was able to verify the equipment as stated in table 2.

On the whole, equipment required in the process of providing care was available in the wards or could be ordered as the need arose. Notable exceptions were related to scarcity in sphygmomanometers and stethoscopes, on stationery, the Kardex and treatment cards were out of stock. The shortage of sphygmomanometers had the potential to compromise the care that the clients received.
4.5 Limitations of the Study

The sample sizes of both clients and nurses were representative of the respective total population samples in three orthopaedic wards at Parirenyatwa Hospital. It is noted, however, that the research question went beyond three wards and beyond one Hospital in its quest to identify standard tools which could be used to measure quality of care in the National Health Services of Zimbabwe. To the extent that the research was concerned with the National outlook towards health, the sample sizes of both clients and nurses were small. In that regard, the sample sizes were not representative of the views held by clients and nurses in Zimbabwean hospitals. That limited the scope of the findings of the research. However, given limited funding and limited time, in which the researcher had to conclude the study, the research serves as a useful pilot study upon which a bigger sample requiring more funding could be made to develop standard tools upon which quality of care could be measured within the health services of Zimbabwe. The major limitation to the findings of the study was that the sample included hospitalized clients who may have had fears about expressing their opinions.
5.0 Implications of the study

1. The marginalization of the nurses’ independent functions by the nurses themselves, indicate the need to introduce a nursing framework that would guide the activities of nurses and empower them so that they are accountable for their own actions. The framework will assist in the qualitative management of time by the nurse. A systematic and scientific management of care will assist in eradicating inconsistencies in the care presumed given, and the care presumed received as was revealed in this study. To achieve the above stated objectives, there is need for a Nurses Act that affords nursing the autonomy as a profession to govern its own activities.

2. Nurses’ attitudes and interactional skill suggest some deficiencies and this tended to influence perception of care by clients. In this regard the Nurses’ philosophy would need to be reviewed with a view to making it compatible to the expectations of the clients.

3. Nurses needed to plan their care comprehensively in order to cater for the clients’ individual differences, concerns and interests.
4. There is need to revisit the use to which the procedure manual is put and evaluate its contribution towards technical competence especially in a teaching ward. A case exist for research on the appropriateness and viability of the procedure manual.

5. Ward meetings are essential. As these were not a regular feature of the nurses’ activities, emphasis must be placed on the convening of ward meetings on a regular basis as a deliberate strategy to engender a spirit of cooperation amongst nurses.

6. Documentation of care is essential. The use of the Kardex on its own needs to be evaluated for its comprehensiveness in light of the short comings cited in the study. This aspect needs further research.

7. Formal education did not lead to increased awareness of one’s health needs and rights. This was an unexpected finding which showed that clients, irrespective of their educational background, were ignorant of their right to information and were therefore not able to exercise it. This was an area of concern, as it impacted on clients’ perception of care.

8. Nurses need to be active counsellors in the deliverance of care, and needed to be sensitized to this expanding role.
9. Wherever possible, a deliberate policy be adopted in deploying nurses in their areas of preference to improve attitudes, competence and care.

10. Cleanliness was high and that aspect had a significant role in influencing positive perception of care by clients. Hygienic standards should be maintained.

Recommendations

1. Material resources need to be increased and all essential equipment maintained so that shortages do not unduly undermine the care given to clients.

2. More nurses should be recruited to improve the nurse-patient ratio.

3. The trainers of nurses should regard communication as a strong component of the nurses' curriculum.

4. Nurses need to continuously evaluate the type of care they give to clients.
5. Clients should be given the opportunity to validate the information nurses give them, so that they understand the care that they receive. In this regard it is suggested that information guide books be made available at bed-sides in the four major languages: Shona, Ndebele, Venda and English to assist the clients to understand their rights, duties and obligations.

6. The nursing process should be used to deliver care which would facilitate continuous evaluation and validation of information.

Conclusion

The study sought and established the views of clients on the care they received, the views of nurses on the care they gave, the extent to which the two parties shared views on quality of care and the impact of the availability or lack of key supplies on quality of care. Utilizing selected indicators of care from Donabedian’s framework which classifies care under “structure,” “process” and “outcome,” it was possible for the respondents to qualify care. The researcher quantified, analysed and interpreted the care given. On the whole, clients were satisfied with the care they received. There remained a need for correspondence of information given by nurses and information received by
clients regarding orientation to illness and treatment and admission procedures in wards. Nurses felt overstretched by their workload as was confirmed by the nurse-patient ratio. In that regard special commendation went to the nurses’ performance of their dependent functions. That notwithstanding, the need existed for nurses to fulfil their independent functions. It appeared that nurses’ failure to make an impression is areas which were their sole responsibility, had the effect of distorting their perception of care.

Sphygmomanometers and stethoscopes were in short supply and this had adverse implication on the care given.

The researcher believes that the quality of care indicators could be further developed along the lines of "structure", "process" and "outcome" and could be adopted at national level and serve as standard tools with which to measure quality of care.


15. Van Tonder S. (1992)  
The rights of Nurses.  
Nursing RSA Verpleging Vol. 7  
Number 2 1992. pgs 44 - 47.

Askew I, Mensch B. and Adewuyi A (1993)  
Quoted.  

Edited


Quoted

Canadian Journal of Nursing Research 21 (4), 35 - 43.
31 May 1994

Parirenyatwa Hospital
P O Box CY 198
Causeway
Harare

Dear Clients,

I am a third-year BSc Nursing student majoring in Nursing Education. Part of my studies require that I undertake a research study I have chosen a study to develop an instrument to measure the quality of care.

I believe this information will assist nurse administrators, nurse clinicians and nurse educators to realistically plan for the resources that are necessary to meet the specified acceptable minimums. This tool will also assist in providing a yardstick against which performance can be measured.

I am requesting you to assist me in this undertaking by completing the enclosed questionnaire. All information will be treated confidentially and names will not be used or appear anywhere on the questionnaires or the results.

Your cooperation will be greatly appreciated.

Thank you.

Yours sincerely,

P MAKONI (MRS)
31 May 1994

Parirenyatwa Hospital
P O Box CY 198
Causeway
Harare

Dear Colleagues

I am a third year BSc Nursing student majoring in Nursing Education. Part of my studies require that I undertake a research study I have chosen a study to develop an instrument to measure the quality of care.

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All information will be treated confidentially and names will not be used or appear anywhere on the questionnaires or the results.

Your cooperation will be greatly appreciated.

Thank you.

Yours sincerely

P MAKONI (MRS)
QUESTIONNAIRE FOR PATIENTS

INSTRUCTIONS

1. Do not write your name on any page
2. Please answer all questions.
3. All the information obtained will be treated confidentially.
4. Tick appropriate response where necessary.

SECTION 1

BIOSOCIAL DATA

1) SEX : Male/Female

2) MARITAL STATUS : Married/Single/Widowed/ Divorced/Separated

3) AGE :
   - 18 - 20 Years
   - 21 - 30 Years
   - 31 - 40 Years
   - 41 - 50 Years
   - 51 - 60 Years
   - 61 Years & Above

4a) EDUCATION :
   - Grade 1 - 7
   - Junior Certificate
   - "O" Level
   - Form 6
   - Diploma/Graduate

b) OCCUPATION :

5) RACE :
6) RELIGION: Protestant/Catholic/Apostolic/Moslem/ Other specify

7) DIAGNOSIS:

SECTION II

PART I

ADMISSION AND ORIENTATION INTO WARD:

8) When were you admitted into the hospital?
   Date ______________

9a) Were you aware of what was happening on admission?
    YES/NO?

b) If yes, was the reception:

   Friendly  [ ]
   Indifferent [ ]
   Unfriendly [ ]

c) Give reason for your answer.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

121
d) If you were not conscious when you were admitted, when gained consciousness, did you find the environment:

- Friendly [ ]
- Indifferent [ ]
- Unfriendly [ ]

e) Give reason for your answer.


10) Were you given information about:

- Ward routine [ ]
- Meal times [ ]
- Toilet facilities [ ]
- Visiting time [ ]
- Recreational facilities [ ]
- Others specify [ ]

PART II

PERCEPTION OF QUALITY OF CARE:

11 a) Is this your first admission into hospital?

YES/NO
b) If no, how do you find the way you are being treated now compared to the last time?

- Better
- Same
- Worse

c) Explain your choice.

12) How often do your relatives visit you?

- Daily
- Every Other day
- Once a week
- Other specify

13) Do you find the care:

- Good
- Fair
- Poor

Please give reasons for your answer.
14 a) Were you given information about your illness?  
YES/NO

b) If yes, who gave you the information?

________________________________________________________________________

________________________________________________________________________

c) What were you told?

________________________________________________________________________

d) If not, what do you think you suffer from?

________________________________________________________________________

________________________________________________________________________

ORIENTATION TO TREATMENT

15) Were you given information about your treatment?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td></td>
<td></td>
<td></td>
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<td>iii)</td>
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<td>iv)</td>
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<td>vii)</td>
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<td></td>
<td></td>
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<tr>
<td>viii)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

i) Observations: Temperature
Pulse
Blood pressure checking

ii) Wound dressings

iii) Oral medications

iv) Injections

v) Traction alignment

vi) Plaster of Paris

vii) Physical exercises

viii) Other specify
SECTION III

PATIENT SATISFACTION

16a) Do you want your relatives to know your illness through:

1) Yourself  [ ]
2) The Nurse  [ ]
3) The Doctor  [ ]
4) Should not know anything  [ ]

b) Give reason for your answer.


17) Do you get the help you need from nurses?

<table>
<thead>
<tr>
<th></th>
<th>ON REQUEST</th>
<th>DELAYED</th>
<th>IGNORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Urinal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Bedpan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3) Bedbaths/Assisted baths
4) Change of bed linen
5) Change of pyjamas
6) Others specify
7) Others specify
18) Is the food:
   a) Well prepared Yes/No
   b) Enough Yes/No
   c) Served on time Yes/No

19a) Are your surroundings clean?
    YES/NO

   b) If not give reasons for your answer.

SENSITIVITY TO PAIN CONTROL AND OTHER DISCOMFORTS:

20a) Apart from your illness, what else worries you?
    ____________________________
    ____________________________

   b) Have you discussed these worries with the nurse?
      YES/NO

   c) If no, explain your answer.
    ____________________________
    ____________________________
    ____________________________
21a) If in pain, are you attended to:

- on request
- long after request
- ignored

b) Give reasons to your answer.


22) What aspects of your care do you find most satisfactory?


23) What aspects of your care do you find most unsatisfactory?


24) Any other views you would like to add?
APPENDIX IV

QUESTIONNAIRE FOR NURSES

INSTRUCTIONS

1. Do not write your name on any page.
2. Please answer all questions
3. All the information obtained will be treated confidentially.
4. Tick appropriate response where necessary.

SECTION I

1a) WARD  :  Male Orthopaedic  [ ]
             Female Orthopaedic  [ ]

b) Present Bed capacity :

c) Present number of staff :

   Registered Nurses  [ ]
   State-certified Nurses  [ ]
   Student Nurses  [ ]
   Nurses Aides  [ ]

BIOGRAPHIC DATA

2) SEX  :  Male/Female

3) AGE  :
   18 - 24 Years  [ ]
   25 - 30 Years  [ ]
   31 - 40 Years  [ ]
   41 - 50 Years  [ ]

4) MARITAL STATUS  :  Married/Single/Widowed/Divorced/Separated
5) **QUALIFICATION**: Student nurse ---- 3rd year ------
    Certified nurse ---- Year attained ------
    General nurse ---- Year attained ------
    Post Basic ------- Year attained -------

**SECTION II**

**WORK EXPERIENCE**

6) How long have you worked in this ward?

   Months [ ]
   Years [ ]

7a) From the list of speciality wards listed below which do you prefer practising in most?

   - Medical
   - Surgical
   - Orthopaedic
   - Community
   - Paediatric
   - Gynaecology
   - Other specify

   b) Give reasons for your preference.

   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

8a) Were you oriented to this ward's policy?

   YES/NO
b) If yes, indicate the degree of importance attached to the following:

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Patient's reports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient's contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discharge procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniform attire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On and Off duties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9a) Is there a procedure manual in the ward?  
YES/NO

b) How many times in the last month have you referred to the procedure manual?  
-------- times.

c) What is it that you were looking at in the procedure manual?


d) Did you find the procedure manual helpful?  
YES/NO
e) Explain your answer in each case:


WORK-LOAD

10) What is the average nurse-patient ratio at any given time in this ward? Indicate number of nurses:

- Morning shift
- P M shift
- Split-off shift
- Night duty

11) Given the total number of patients, about how many patients at any given time require:

- Total care
- Partial care
- Self care (ambulatory)

12) What is your view of the present nurse-patient ratio given the work-load of the ward?

- Very adequate
- Minimally adequate
- Inadequate
- Grossly inadequate
13a) Is there a duty allocation roster in your ward?  
YES/NO

b) Are you consulted before the duty roster is written?  
YES/NO

c) If not, does it affect your performance?  
YES/NO

d) Explain your answer


e) How often are tasks changed?

- Daily  
- Weekly  
- Fortnightly

PART II

CLIENT ORIENTATION

14a) On admission to the ward, do patients receive orientation?

- Always  
- Sometimes  
- Never
b) If yes, what information are they given?
   1.
   2.
   3.
   4.
   5.

c) Who gives the information?
   - Nurse Aides
   - Student Nurse
   - Certified Nurse
   - Registered Nurse
   - Others specify

15a) Do patients receive information on their illness?
    YES/NO

b) If not, give reasons for your answer.


c) If yes, who gives the information?


16a) Do patients receive information on their treatment?
    YES/NO
b) If not, give reasons for your answer.


c) If yes, what information is given?

1.
2.
3.
4.
5.

SECTION III

PART I

PERCEPTION OF QUALITY OF CARE

17a) What system of reporting patient's condition do you use in your ward?

- Bed-side reports
- Verbal reports
- Kardex
- Others specify

b) Are you satisfied with this reporting system?

YES/NO
c) Explain your answer.

18a) Do you have ward-meetings in which you discuss the quality of care or issues related to nursing care?
YES/NO

b) If yes, how many times are meetings held?
- Once in 2 months
- Once a month
- Twice a month
- Others specify


c) Are the topics discussed during the meeting relevant to your practice?
- Very relevant
- Relevant
- Not very relevant
- Not relevant at all


d) Who attends these meetings?
- Nurse Aides
- Student nurses
- Certified nurses
- Registered nurses
- Others specify


e) If not, are you satisfied with the way things are?
YES/NO
f) Explain your answer


19a) In your view, what is the most important item which makes a difference in the quality of care that is provided in the unit?


b) Elaborate your answer

1.
2.
3.
4.
5.

PART II

SENSITIVITY TO PATIENT'S PAIN CONTROL OR OTHER DISCOMFORTS AND PATIENT'S SATISFACTION

20a) What are some of the major complaints you receive from patients?

1.
2.
3.
b) Have you been able to discuss these complaints with the patient?  

YES/NO

c) If not give reasons for your answer

_________________________________________________________________________
_________________________________________________________________________

_________________________________________________________________________
_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

d) Do you receive letters of complaints from patients post discharge?

- Always  [ ]
- Often  [ ]
- Sometimes  [ ]
- Never  [ ]

If you do, how have you handled such complaints?

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

21a) Does the ward have a system of establishing contact with patient's relatives?  

YES/NO

b) If yes, briefly explain how the ward maintain this contact

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

_________________________________________________________________________

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c) If no, are you satisfied with the situation the way it is?

____________________________________________________________________

____________________________________________________________________

22a) Do you get rewards/presents from patients?

- Always 
- Often 
- Sometimes 
- Never 

b) Do you get thank you cards/letters from patients?

- Always 
- Often 
- Sometimes 
- Never 

c) Please give a summary of the quality of care which you truly believe, patients in your ward receive.

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

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CHECKLIST OF ORTHOPAEDIC SUPPLIES RELEVANT TO THE PROVISION OF QUALITY CARE.

1) WARD:

PRESENT WARD CAPACITY:

2) STAFF:

<table>
<thead>
<tr>
<th>REGISTERED NURSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFIED NURSES</td>
<td></td>
</tr>
<tr>
<td>STUDENT NURSES</td>
<td></td>
</tr>
<tr>
<td>NURSES AIDES</td>
<td></td>
</tr>
</tbody>
</table>

3) EQUIPMENT:

<table>
<thead>
<tr>
<th>Item</th>
<th>No. AVAILABLE</th>
<th>REMARKS ON PATIENT-RATIO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Thermometers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Bed-pans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Urinals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Bathing basin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Sphygmomanometer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Stethoscope</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Wheel-chairs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Fracture boards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Monkey-chains</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Air-rings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Drip stands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Pillows</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4) SUNDRIES

<table>
<thead>
<tr>
<th>Item</th>
<th>AVAILABLE</th>
<th>NOT AVAILABLE</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractive Kit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthopaedic wool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plaster of Paris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton wool</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
5) **STATIONERY**

- Treatment charts
- Temperature charts
- Kardex
- Intake and Output Charts

<table>
<thead>
<tr>
<th>AVAILABLE</th>
<th>NOT AVAILABLE</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>