AN INVESTIGATION OF THE ATTITUDE OF ORTHOPAEDIC PATIENTS WITH FRACTURED FEMUR TOWARDS REHABILITATION IN HOSPITAL AFTER INJURY

By

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A DISSERTATION SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE M.CUR DEGREE IN THE DEPARTMENT OF NURSING SCIENCE, AT THE UNIVERSITY OF ZULULAND [DURBAN-UMLAZI CAMPUS]

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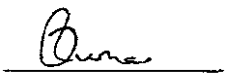
Submitted: July 2004

DECLARATION

I declare that :-

a study on the investigation of the attitude of orthopaedic patients with fractured femur towards rehabilitation in hospital after injury, is my own work and all sources that I have used or quoted have been acknowledged by means of complete references.



MISS T.D. ZUMA

DATE: 18 June 2004

DEDICATION

The study is dedicated to the following:-

- My family, especially my sister MN Thusi and my children Thobile and Bonginkosi for their love, support, encouragement and understanding as I deprived them of care and attention while I compiled the study.

- My friends for their support and encouragement.

- My late mother, Emma, who nurtured love, sacrifice, endurance in me and the desire to improve myself.

ACKNOWLEDGEMENT

- First of all, I thank God, the Almighty for giving me strength and guiding me through each step of the study.

- I extend my heart felt thanks to my supervisor, Doctor B.A. Kubheka for her guidance, patience, encouragement, sustained support in completion of this study.

- I also wish to express my sincere thanks to the following:-

  - The Department of Health of KwaZulu-Natal for granting me the permission to conduct my study in hospitals under its jurisdiction.
  - The Medical Superintendent and Nurse Manager in charge of the hospitals for granting me permission to data from the patients admitted in their hospital.
  - The patients that were interviewed for their time and patience during the interview session and for the response they gave.
  - My colleagues for their support and assistance during data collection.
  - Staff in physiotherapy and occupational therapy department for the information that they contributed.
  - Mrs ZV Ncwane and Miss T.Z. Zuma for typing this document.
  - The authors whose books and articles which have been used.

ABSTRACT

This study is aimed at investigating the attitude of orthopaedic patients with fractured femur towards rehabilitation in hospital after injury.

A descriptive survey was undertaken. One set of questionnaire was designed for patients with fractured femur who were admitted to hospital after injury. It consisted of both structured and unstructured questions.

The total sample comprised of twenty five (25) orthopaedic patients with fractured femur. Selected through purposive sampling where every patient with fractured femur was selected. The study revealed that most of the patients with a fractured femur had a negative attitude towards rehabilitation. The study indicated that they were not given enough information about the importance of rehabilitation programmes on admission to hospital.

Based on the above findings it was recommended that information on the nature of rehabilitation programmes should be given to each patient on admission. This should include the roles and functions of the rehabilitation team members and their expectations in order to encourage a positive attitude and cooperation during the rehabilitation process.

OPSOMMING

Die doelwit van hierdie studie was om ondersoek in te stel na die houding van ortopediese pasiënte met fracture van die femur ten opsigte van rehabilitasie in die hospital nadat die besering plaasgevind het.

'n Deskriptiewe ondersoek is gedoen en 'n vraelys is ontwerp vir pasiënte met fracture van die femur wat in die hospital opgeneem is na die besering. Die vraelys het beide gestruktureerde en ongestruktureerde vrae bevat.

Die steekproef het bestaan uit vyf en twintig (25) ortopediese pasiënte wat saamgestel is deur elke pasiënte wat met 'n fraktuur van die femur in die hospital opgeneem is, te selekteer.

Die ondersoek het aan die lig gebring dat die meeste van die pasiënte met fracture van die femur 'n negatiewe houding het ten opsigte van rehabilitasie in die hospital nadat die besering opgedoen is. Die studie het aangetoon dat hulle tydens opname in die hospitaal nie voldoende ingelig is oor die belangrikheid van rehabilitasieprogramme nie.

Gebaseer op die bevindinge is sekere aanbevelings gemaak. Inligting oor die aard van die rehabilitasieprogramme moet aan die pasiënte gegee word tydens toelating. Hierdie inligting moet besonderhede oor die rolle, funksies en verwagtinge van die rehabilitasiespan insluit sodat dit 'n positiewe houding en die pasiënte se samewerking ten opsigte van die rehabilitasieproses, sal bevorder.

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CHAPTER 1

1.1 INTRODUCTION

Advances in methods of transport have increased the number of injuries associated with travelling. Thus emergency departments are frequently overflowing with the resultant casualties. Also these departments are kept busy with new types of injuries from the violent society in which we now live in. Most of the injuries sustained are fractured femurs. Fractures of femurs take long to heal and require extensive rehabilitation .Nayagam et al (2001:7000) support this by saying that fractured femur should unite in 100 days,plus or minus 20.

The above increase in accidents has caused changes in orthopaedic surgical procedures and patient management has been adapted to meet the new set of needs and circumstances (Footner, 1992:1).

On personal observation most patients feel or think rehabilitation should be the last thing to be done when the bone has healed. At times they have an attitude that since one is in hospital everything must be done by the nurses, forgetting that one needs to exercise in order to prevent complications and promote self-care. Some feel that they are being abused by the rehabilitation team or they are cruel to them if told to exercise or get out of bed. At times they feel that they are denied the privilege of having everything being brought to them. Gillis(1972:159) support this by stating that some patients sink into a state of regression seen by behaviour that is characterized by refusal to help themselves, appear over –demanding and view a nurse as a substitute mother. Thus patient expect the nurse to attend to all his needs even if he can do so on his own .

Rehabilitation is a process aimed at preservation or restoration of independence which begins with promotion of positive health and the prevention of disease and injuries at community level. It continues in hospital by means of prompt and effective treatment and rehabilitation. It is complete only when the patient is restored to the maximum physical, psychological, social and economic independence commensurable with his condition (Powell, 1986:5).

This study was undertaken to find out about the attitude of patients with fractured femurs towards rehabilitation. This will contribute in improving their negative attitude to a positive attitude in order to prevent permanent disability in these patients. This will result in their independence and proper rehabilitation.

1.2 BACKGROUND TO THE STUDY

The researcher as an orthopaedic nurse has observed that many orthopaedic patients are reluctant to be rehabilitated, especially those with fractured femur this leads to complications which further prolong recovery and at times warrant long hospitalization or repeated admission or surgery. At times the injured person is a breadwinner and the family end up starving because there is no source of income to cater for their needs. Some patients end up loosing their jobs at time of increasing unemployment which is already high in South Africa as we have heard or read on radio and newspaper.

The rehabilitation process may be brief and simple for some patients, involving few instructions and minor adjustments that will help them to cope with the environment, while others need long periods and special techniques by a multidisciplinary team to help develop an entire new pattern of life.

Although modern treatment and advances in the surgical procedures have greatly reduced the in-patient time, orthopaedic patients are still spending

relatively long periods in the hospital before discharge. Their long stay in hospital delays restoration of independence and lead to more claims on scarce and expensive national health and welfare resources.

The advances in treatment and orthopaedic surgery need to be combined with extensive rehabilitation of each patient. At present patients with fractured femurs are not yet geared to this concept of rehabilitation. They feel sorry for themselves and are reluctant to be actively involved in their rehabilitation. The family members are also very reluctant to encourage their patients to co-operate with the multidisciplinary team procedure. Trombly (1995:19) stated that orthopaedic patients with fractured femur become dependent on the security of the hospital enviropnment and the support of nursing personnel since all their needs are provided by staff.

The ultimate goal of rehabilitation is re-instatement of the patient in the society, who is ready to accept the limitations of his/her mobility or loss of body image if this is necessary (Footner, 1992:2).

1.3 STATEMENT OF THE PROBLEM

Patients with fractured femurs are reluctant to be rehabilitated soon after injury, believing this should wait until healing of bone takes place in order to avoid pain. This reluctance causes them to develop many complications which hinder the normal process of healing and proper rehabilitation. The reluctance also influences the relatives to be overprotective of the patient and this may hinder the rehabilitation process.

The causes of negative attitudes should be investigated in order to improve the health status and economic status of each patient, because they may end up with severe disabilities. They may eventually see injury as an easy way of

getting a disability grant, which is not enough to sustain the family in comparison of the patient being able to return to his place of work. Trombly (1995:20) states that injury and disability maybe seen as providing sanction to stop working and be cared for by the family even though the degree of disability still allows employment.

1.4 OBJECTIVES

(i) To identify the causes or factors contributing to the reluctance of patients with fractured femurs towards rehabilitation.

(ii) To evaluate the quality of rehabilitation care provided.

(iii) To find measures to improve the attitude of patients with fractured femurs towards rehabilitation.

1.5 RESEARCH QUESTIONS

(i) What is the attitude of orthopaedic patients with fractured femurs towards rehabilitation?

(ii) What are the factors that can contribute to the positive or negative attitudes of patients these towards rehabilitation?

1.6 MOTIVATION FOR THE STUDY

As an orthopaedic nurse the reseacher is always involved in nursing patients with orthopaedic problems.At times it is very difficult to provide excellent rehabilitation to these patients as fracture takes long to heal or may end up with complications like stiffness of joints or muscle wasting. Nayagam (1995:700) state that fractured femur may take 100 days plus or minus 20 days. They feel so helpless and expect every thing to be done for them.

Family members feel pity and want to do everything for the patient. This does not encourage the patient to be as independent as she/he can be. At times patients are over-nursed, thus they do not have a chance to learn to do things for themselves until it is too late.

There is a tendency to regard rehabilitation as someone else's business or terminal event in a patient's treatment, which must be done when the bone has healed. Rehabilitation team members end up with a problem of how to rehabilitate patients with fractured femur. This hinders their independence and their income suffers because they loose their employment.
The researcher was therefore interested to do this study in order find out what causes the reluctance and be able to give advice to the rehabilitation team members as to how to improve the situation.

1.7 ASSUMPTION

It is assumed that full co-operation of both patient and family as active members of rehabilitation, as well as early rehabilitation, can improve their attitude towards rehabilitation and decrease the number of complications following injury.

1.8 DEFINITON OF CONCEPTS

1.8.1 Attitude

"The way you think, feel or behave" (Oxford Dictionary, 1993:26).

1.8.2 Rehabilitation

Rehabilitation includes the prevention of further disability, maintenance of remaining abilities and restoration of as much function as possible in activities of daily living and in social roles.

Rehabilitation nursing involves advising and teaching the patient and their families to adapt to familiar or new lifestyles so that realistic goals are set to enable individuals to reach their maximum potential (Davis, 1994:348).

1.8.3 Fractured femur

Involves any break of the femur above the knee joint up to the neck of the femur (Smeltzer & Bare, 1996:1925).

1.9 CONCLUSION

In chapter One an introduction as background to the study, the statement of the problem, objectives, research questions, motivation of the study, assumptions and definition of concepts were discussed. In the next chapter a literature review will be presented.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the researcher will discuss books, journals, periodicals and magazines that have been used as a background to the study. However, not much research has been done on this topic and recent books were not found. The literature review is discussed under the following headings which seems to be relevant to the topic :- Attitudes, factors influencing rehabilitation attitude, aims of rehabilitation, assumptions, factors promoting good rehabilitation, and other factors that promote good rehabilitation.
Fractured femur : types, causes, management of fractured femur, rehabilitation of patients with fractured femur and complications, and its management.

2.2 ATTITUDES

Tyson(1987:335) states that attitudes are an integral and important part of our everyday life. Everyone has an attitude towards many different objects in their environment. If one holds certain beliefs about an object, one will either have positive or negative feelings about it and tends to behave in certain way when he comes into contact with. Then it is said that one has an attitude towards it.
The concept of attitudes is very important because attitudes can be used to explain why people behave in a certain way and can be used to predict people's future behaviour.
Attitudes change has been part of every human being's life for a long time as seen in the bible when Eve was tempted by a serpent to eat the fruit from the tree in the middle of the garden. Then Eve attempted to change Adam's attitude towards the fruit Genesis(3:3)

Attitudes involve favourable or unfavourable evaluation which is likely to affect one's response yowards person or object concerned like if one expresses a favourable attitude towards a particular doctor it stands to reason that she will visit that doctor when sick or injured.Attitudes also have a belief or opinion components for example, favourable attitudes may be due to spefic own beliefs about doctor's sound knowledge of orthopaedics Lourens(1990:90).

According to Lourens (1990:43) attitudes imply general predispositions in which people respond either positively or negatively towards an object, person or situation. This means that attitudes entail evaluation which can be present in different degrees that is from positive. Negative or even a neutral level where there is no reaction at all. Attitudes are to some extent usually associated with cultural and other beliefs which in turn are determined largely by self-experiences. Thy can serve various functions fo0r example areas of adjustments, value expression or knowledge as well as determine the response to injury and treatment.

Adams and Bromley (1997:28) on the other hand state that attitudes are settled or fixed ways of responding to people and objects in the environment. It involves what people know, believe or feel as well as what they say and do. Attitudes can change in response to new experiences or persuasion. An attitude is regarded as having mainly cognitive and emotional component which then lead to behavior. Therefore questioning one about beliefs and feelings is thought to give direct information about the attitude.

2.3 FACTORS INFLUENCING REHABILITATION ATTITUDE

There are many factors that influence the attitude towards rehabilitation. It is important to discuss these factors so that they can be easily identified and dealt with.

Factors

1. Discharge

This is a threatening time for those who feel they are not ready for discharge to the community. They become dependent on the security of the hospital environment and the support of nursing personnel since their personal needs are provided for them, for example bathing. They put obstacles in the way of discharge in order to continue with hospitalization, for example they play sick and fail to use the appliances. Trombly (1995:19).

2. Motivation

Trombly (1995:19) also discusses motivation as one of the factors influencing attitude towards rehabilitation. A patient's motivation depends on the value he/she places on the attainment of goals and his assessment of personal costs, for example pain, effort, time and his estimation of chances of success.

Motivation can also be influenced by family attitudes towards the patient's role, disability and meaningful future goals. Therefore the value and meaning of specific rehabilitation goals influence the patients motivation to work and achieve these goals.

3. Family

The family's ability to cope with the crisis of having an injured member and their willingness to retain the patient's role is crucial in the success of rehabilitation.The family may prevent maximal rehabilitation by over protection, neglect, avoidance of discharge, planning and punitive action toward the patient. Thus the family may precipitate more problems than they solve by being in the way in the ward. Trombly (1995:21).

Watson (1992:25) agrees with the above view by saying when a family member becomes disabled, it may mean a change in the way of life for the whole family; where responsibilities are shifted, for instance, plans and goals may be shattered. He further states that family can show resentment and rejection for the patient whose disability has altered their life or they may show marked concern for the disabled member which leads to over protection that fosters dependence.

4. Staff attitude

Examination of staff attitudes and behaviour reveals their concern and loyalty to the patient and his concept of good rehabilitation. Attitudes of staff may impede the very process to which the rehabilitation team is committed like excessive need to nurture and have others be dependent or a paternalistic attitude. This might influence the rehabilitation process negatively since the aim of rehabilitation is teaching the patient to be independent by doing self-care. Staff therapeutic role differs during each phase of rehabilitation and whatever phase it is, eventually the relationship should encourage autonomy and personal decision making. Trombly (1995:21).

5. Cultural attitude

Cultural attitudes and values acquired from childhood are influencing factors in the process and outcome of rehabilitation. Culture may also influence a patient's understanding of his personal worth, what he is entitled to and his privileges as a human being. He may use delayed recovery as a defense mechanism. Disability may be seen as providing sanction to stop working and be cared for. This can hinder the process of rehabilitation because even if the patient is seen to be ready to assume his normal duties, especially going back to work, he will view himself as totally disabled Trombly (1995:21)

The above discussion of attitude is important because it could influence the patient by generating negative attitudes towards rehabilitation Trombly (1995:19-22).

2.4 AIMS OF REHABILITATION

Some authors have identified the aims of rehabilitation as follows:-

- To prevent temporary disablement from becoming permanent. Also to prevent permanent disablement from developing such complications as might be a hindrance to their ultimate enjoyment of a better life. A better life does not only include physical independence but also socio-economic independence and resettlement in a previous job or retraining for a new job. Rehabilitation is an essential part for both temporary and permanent disablement (Powell, 1986:46).

- Dewar (1990:63) states that the aim of rehabilitation is not only training disabled people to adapt to their environment, but also at intervening in their environment and society to facilitate social integration.

- Skinner and Nigel (1996:63) state that an important aim of rehabilitation is to decrease disability by maximizing a person's remaining abilities.

- Footner (1992:232) sees the aim of rehabilitation as helping the patient to achieve maximum and psychological fitness and to regain the ability to care for himself.

- According to Sinaki (1993:4) the aim of rehabilitation is to decrease the dependence of the handicapped or disabled person by developing to

the greatest extent possible the abilities needed for adequate functioning in the individual's situation.

- Vlok (1996:774) on the other hand states that rehabilitation aims at training a disabled person to make the best use of his remaining capacities, to earn a living to care for his own body, to participate in social relationships and to enjoy pleasurable activities.

- Rehabilitation, according to Smelzer and Bare (1996:326), aims at restoring the patient to independence or to pre-illness / pre-injury level of function in as short a time as possible. They further state that rehabilitation aims at maximal independence and quality of life that is acceptable to the patient.

- Dittmar (1989:10) indicates that the aims of rehabilitation are to maintain function through prevention of primary disability and containment of secondary disabilities, to restore optimum function in the performance of self-care activities and to restore optimum function in the performance of social roles.

2.5 ASSUMPTIONS

Anderson (1988:240) defines assumption as what is taken for granted or a supposition. An assumption can either be well recognized and established and thus operate at a conscious level or can be subtle or implied, thus one is hardly aware of it or have limited control over its influence on people because it operates at an unconscious level. Therefore these assumptions exert a significant influence on patients with fractured femur attitude and behaviour. In conclusion improved awareness of previously unrecognized assumptions may change the way that assumption affects one's attitude and behaviour.

The following assumptions have been identified in rehabilitation:

1. Sick role

The patient's assumption about his condition or his self can have an effect on his attitude and behaviour in rehabilitation training. This role is well establish as most people learn this role from their previous acute illness. Patients with fractured femur view themselves as very ill and in pain thus expect that everything be done for them.

2. Relationship

The relationship between patients with fractured femur and the rehabilitation team have an effect on how well or how poorly the patient do in his rehabilitation training. If the patient feels that he is being handle roughly, this could lead poor relationship which could hinder the rehabilitatiuon process.

3 DISABILITY

Many patients assume that any disability means total disability. This can influence a patient to be dependent on nurses and become reluctant to help himself. Patients with fractured femur may be affected by this because they think that they are totally disabled and fail to participate actively in their rehabilitation.

4. Independence

During rehabilitation, the rehabilitation team expect each and every patient to be eventually independent but sometimes this is impossible because some

patients have spent all their lives being passive and dependent on others. It would be difficult to change this attitude from patients during rehabilitation.

5. Motivation

Motivation in rehabilitation is enhanced by identifying the patient's re-inforcers and then tap into them in order to foster collaboration between the patient and the rehabilitation team.

Attitudes to rehabilitation can be improved if the rehabilitation team knows about the above assumptions and use them during the rehabilitation process. Anderson (240-250) .

2.5 FACTORS PROMOTING GOOD REHABILITATION

From birth almost everything that humans do is learned. Martell (1997: 1) identifies the following as essential ingredients for learning or relearning which is important in rehabilitation.

a) Plan

The more specific, concrete and obvious the strategy towards a desired outcome is, the more likely that the plan will work. The rehabilitation team should use good strategies when planning for rehabilitation to avoid negative attitudes of the patients.

b) Practice or Repetition

This is the cement for learning. With practice and repetition even the most complex tasks becomes automatic and habitual. Thus patients with fractured femur need to be taught everything about rehabilitation and be allowed to practice that task repeatedly in order that they may grasp it properly.

c) Promoting

Promoting a facilitative attitude should be provided to patients because they generate motivation which is needed for the mobilization of energy, which is needed for accomplishment of progressive series of desirable challenging goals.There are many challenging goals facing orthopaedic patients with fractured femur,like use of crutches without bearing weight.

Commandments of rehabilitation

Martell further comments on five commandments for rehabilitation:

Commandment 1 : Thou shall make only accurate comparisons

It is fair for each patient to compare himself with another patient with similar injuries or disability, as this comparison allows him to measure accurately his condition or state of disability.These patients are made to sleep together in order to support and encourage each other.

Commandment 2 : Thou shall learn new ways to do old things

Learning new ways to do desired tasks versus giving up and feeling hopeless because the old way does not work is the key to challenging obstacles and overcoming them. That is why this study is important because patients with fractured femur need to be guided and supported in order to adjust to new lifestyle following injury.

Commandment 3 : Thou shall not beat thyself up – instead thou shall build thyself up

Martell (1997:3) comments that when one has a physical injury like a broken leg, getting mad or hitting the leg delays recovery and increase the symptoms and pain, whereas pampering, massaging and coaxing it along gently will help it to recover. Martel further states that talking to oneselves in a supportive and understanding way versus getting mad for being injured is a good way of building oneselves up in order to face the challenges of rehabilitation. Also rewarding oneselves for the effort an each small step of progress despite the tremendous obstacles and challenges.

Commandment 4 : Thou shall view progress as a series of small steps

Rehabilitation is viewed as one step at a time by focusing on gains one has achieved. Feelings of accomplishment will leave one feeling proud and hopeful. This enables one to focus and reach the next small step ahead. This can improve the patient's attitude towards rehabilitation since rehabilitation is a long slow process which may cause the patient to loose hope. So this commandment is important for patient with fractured femur.

Commandment 5 : Thou shall expect the challenge and strive to beat it

This is done by converting complaints like "I don't want" to a challenge – "I want". This can actively shape one's future by focusing on a vision of hope, challenge, control and satisfaction. This commandment is also motivating to an injured person since it will encourage their positive attitudes.

2.7 OTHER FACTORS THAT PROMOTE GOOD REHABILITATION

An injury does more than physical damage as it also affects one's thought, emotions, attitudes and self image. In rehabilitation the physical as well as the mental effects of an injury should be considered. Thus an injury must be approached as a challenge rather than being viewed as a crisis that must be endured. Approaching it with an attitude of "I won't let this get the best of me" will be more beneficial.

2.7.1 Psychological factors

The United States Olympic Committee (1993:1) suggest that understanding the injury and knowing what to expect during the rehabilitation process makes one feel less anxious and in control. Thus knowing in advance that there will be ups and downs in rehabilitation might make one to be able to deal with these situations when they occur. This can be accomplished by giving constant information to the disabled person about his condition including the complications that may occur.

The committee further suggest that by assuming responsibility and accepting the task at hand one is putting oneself in control. Thus a patient must ask himself – what do I need to do to recover from this injury as others are there to help, like family and the rehabilitation team.

The patient must monitor what he is thinking and saying regarding the injury and the rehabilitation process. One's thoughts must be focused on recovery for an positive image rather than be negative and self-defeating. In order to get the most of one's daily rehabilitation one must maintain a positive, confident attitude and focus on what needs to be done each day.

2.7.2 Physical factors

- Physical activity plays a vital role in the healthy functioning of the human body.
- With physical activity, muscles, bones and joint rebuild and repair in response to the activity.
- Solomon, Warwick and Nayagan (2001:557) further support this by saying that active movement or exercises helps to pump away oedema, stimulates the circulation, prevent soft tissue adhesion and promotes fracture healing. This should include the unaffected joints.
- Footner (1992:17) states that exercising the affected and non-affected limbs helps to conserve the function of joints and muscles during the period of immobilization. Thus potential problems like muscle wasting, joint stiffness, contractures, venous thrombosis and foot drop can be prevented.
- Active muscle movement is important for increasing blood supply to the fracture site which enhances the healing process (Smeltzer & Bare, 1996:1928).
- Regular physical activity is essential for maintaining muscular strength, joint structure and function as well as normal skeletal development.

The central focus of orthopaedic rehabilitation is therefore to facilitate the return to functional independence.

2.7.3 Social factors

The United States Olympic committee (1993:2) suggested that it is very important to maintain the good relationship with the family and the rehabilitation team as they can be a source of strength when one becomes frustrated. They listen when the patient wants to vent some anger, and offer advice or encouragement during rehabilitation. Knowing that one is not alone in facing the injury can be a great comfort and can ease the trauma of the injury.

Crossman (1997:336-337) states that successful recovery requires the support and attention not only of the injured person but also the rehabilitation team, family and significant others. Effective communication between the patient, family and rehabilitation team is also an essential ingredient in the rehabilitation process. Thus the patient who feels that the rehabilitation team treating him is genuinely interested in his well-being and is in tune with any psychological repercussion of his injury, will be more motivated to adhere to his programme of rehabilitation.

2.8 FRACTURED FEMUR

In this section a review on the fractured femur will be discussed since this research is assessing attitudes of patients with fractured femur. The discussion will be under the following headings: definition, causes, types, management and rehabilitation.

2.8.1 Definition

A fractured femur involves any break of bone from above the knee joint up to the femoral head.

2.8.2 Causes

Many patients sustain their injuries in their homes, schools, place of work or during recreation. Trauma is the most common cause of a fracture. Some injury is due to forms of violence, as newspapers and the radio regularly report on the high incidence of violence all over the country.

2..8.2.1 Causes of fracture of neck of femur

According to Nayagam, et al. (2001:684) this type of fracture results from a direct fall onto the greater trochanter. With the elderly people less force is required for a person to sustain a fracture due to very osteoporotic bones, for example twisting the hip into external rotation. Thus one finds that the incidence of fractured neck of the femur has been used as a measure of age-related osteoporosis in population studies. In the younger population the cause is usually a fall from a height or a blow to the hip during an accident. These patients usually have multiple injuries and in 20% of cases there is an associated fracture of the shaft of the femur.

Smeltzer and Bare (1996:1925) support the above and further states that injury is due to brittle bones from osteoporosis and poor gait. Footner (1992:175) also supports these conclusions.

2.8.2.2 Causes of fractures of shaft of femur and supra condylar

The causes of a fractured shaft of the femur and supracondylar are similar. Smeltzer and Bare (1996:1928) state that causes are the following :- direct force, fall from a height or due to a motor vehicle accident. These patients usually have associated multiple trauma.

Footner (1992:178) supports the above causes. Nayagam, etal. (2001:695) reveals that this type of fracture is essentially a fracture in the young adult which occurs due to a high-energy injury with severe violence, for example a combination of direct and indirect forces during which the patient may sustain comminuted or segmental fracture. With the elderly the fracture should be considered to be pathological until proven otherwise.

The above authors also state that the following can be risk factors :-

- pathological conditions like osteogenesis imperfecat or bone cyst and tumours.
- Bone weakening disorders like osteomalacia
- Chronic debilitating diseases like osteoarthritis where the femoral head may collapse due to avascular necrosis.
- With children under the age of 4 years the possibility of physical abuse must be kept in mind.

2.8.3 Types

A fracture can occur at several sites. According to Nayagam, et al. (2001:684) a fractured femur is classified according to the following : neck of femur, femoral shaft and supracondylar or femoral condyle. Whereas Smeltzer and Bare (1996:1925) classify the fracture as follows : fractured neck of femur which is further divided into two types, namely:

a) Intracapsular fracture when it occurs between the femoral head and neck of femur.
b) Extracapsular fracture when it occurs between the region of the base of the neck and the lesser trochanter of the femur as well as the subtrochanteric region. There is also fractures of the femoral shaft and fractures around the region of the knee which are condylar or supracondylar fracture.

Footner (1992:176) classifies a fractured femur according to the following:

Neck of femur which is divided into two groups, namely :

a) Intracapsular, when it is within the joint capsule. This includes subcapital and transcervial fractures.

b) Extracapular, when the fracture is outside the joint capsule which includes pertrochanteric, intertrochanteric and subtrochanteric fractures.

Footner also includes fractures of the shaft of the femur and supra condylar fractures.

2.8.4 Management of a fractured femur

Management can either be conservative or operative management. The aim of treatment is to reduce the fracture at the earliest possible moment although precedence may have to be given to the treatment of other injuries like in the case of multiple trauma. The method of treatment may vary according to different institutions but the underlying principles remain unaltered. This variation in treatment often results from the experience of the orthopaedic surgeon or nurse who has found such methods to be successful in his or her hands.

2.8.4.1 Conservative management

Conservative management is the same for all fractures, which is as follows:

- Manipulative reduction is done and the limb is then immobilized on traction by using one of the following : skin traction, skin traction in Thomas splint bed or skeletal traction. The type of traction depends on the type of fracture.

Fractured neck of femur

This is initially treated with skin traction.

Fractured shaft of femur and supracondylar fracture

This is treated by use of skin traction in Thomas splint bed or skeletal traction.

General nursing care of patient in traction

Nayagam, et al. (2001:684) state that traction when it is applied reduces and hold the fracture in reasonable alignment. About 8-10kg of weight is applied. Smeltzer and Bare (1996:1926) say that traction reduces muscle spasm, immobilizes the extremity and relieves pain.

1. Principles of traction

These principles must be maintained at all times in order to ensure effectiveness of traction.

- Countertraction – for every action there must be an equal and opposite reaction (Newton's third law of motion). Thus the foot end of the bed is elevated in order to achieve the counter-traction.
- Continuity – traction must be maintained continuously. This entails not only maintaining the traction but counter-traction as well.
- Ropes must ride freely over the pulleys and must be free of bedding.

2. Maintaining a safe environment.

The patient is nursed on a firm-based bed to fully support the bony framework. To maintain the efficiency of the traction, the patient should be nursed as flat as possible. Bed aids such as a bed cradle may be used to keep the bed clothes away from the patient's feet and to ensure free running of traction cord, (Footner, 1992:54).

3. Traction

The necessary pull and counter pull must be maintained in the correct position. Traction must be checked at least at 3 hourly intervals to ensure that the patient is not being pulled against the end of the bed. It is essential to explain to the patient the principles of traction in terms that he can understand. The Patient's inclusion in his own care will make him co-operative. The weights on traction must hang free and not rest on the floor or bed. The cords and knots must be checked for fraying and looseness to ensure safety of tractions. The cord must run freely over the pulleys. The pulleys must be silent as a squeaky pulley may be a source of irritation to the patient and his neighbours. (Davis, 1994:109). Footner (1992:55) supports this further states that skin extensions must be checked twice daily for reaction like dermatitis or blisters. Bandages must not be too tight or too loose. Bandages that support the pad that is applied to correct alignment must not be disturbed, for example in fractures of the shaft of the femur.

4. Personal hygiene

Personal hygiene must be maintained and the patient must be encouraged to be as independent as possible within the constraints of traction. Pressure area care should be done as these patients are bed bound and therefore they are at risk of developing pressure sores. The patient is taught how to inspect and move skin in contact with splints every 3-4 hours, like in the case of a Thomas splint traction. In this way the patient will be involved in his own care (Footner, 1992:55).

5. Exercises

Davis (1994:109) states that any part not affected by traction should be moved using active exercises in order to prevent muscle atrophy and joint stiffness due to reduced mobility. For the same reason the part of the body

that is affected or on traction should be moved, if possible by using passive or active exercises.

Footner (1992:56) supports the above and states that the patient must be encouraged to put all unaffected limbs through a full range of active movements each day. Exercises helps to avoid potential problems like venous thrombosis, muscle wastage, stiff joints and osteoporosis.

According to Smeltzer and Bare (2001:684) exercises should begin as soon as possible to ensure joint mobility. It is essential to insist on active use with movement of all joints that are not affected as well as the affected limb, as much as the patient can tolerate. The use of an overhead trapeze may enable the patient to move independently. Static muscle contraction for the injured limb is gradually introduced as a quadriceps drill. Encouragement must be given to cough at least every four hours.

6. Diversional therapy

The nurse must make sure that the patient has access to radio and television. An overhead mirror may be of value as this aids the patient to see what is going on in the ward. Family and friends must be encouraged to visit the patient frequently. This will help them to be involved in the care of the patient, (Footner, 1992:56).

2.8.4.2 Operative management

In this method the patient is taken to theatre for open reduction and internal fixation using any of the following material, but depending on type and site of the fracture. Fractured neck of femur:- either pin and plate is used or prosthesis like Thompson's or Austin moore. For other types of fracture of the femur the following can be used:- plate and screws, nails like

intramedullary or Russel Taylor nail Sarkin (1997:311). External fixation is done in cases of fractures with open wound or when there is severe bone loss.

2.8.5 Post operative management and rehabilitation

1) Fractured neck of femur

Nayagam, et al.(2001:688) state that early mobilization is very important. The patient is encouraged to do active exercises of all unaffected and affected limbs as well as deep breathing exercises. From the first day post surgery the patient should sit up in bed or a chair. The patient must be encouraged to help herself. The patient is initially mobilized with a walker, then on crutches as soon as possible. Therefore the speed of recovery depends largely on how active the patient was before the fracture occurred this is 2-4 months before.

Smeltzer and Bare (1996:1927) support the above and further state that early mobilization should be done so that independent functioning can be restored. Also that during the first 24-48 hours attention is given to the relief of pain and prevention of complications. Thus exercises are encouraged every hour, for example foot flexion exercises. An abduction pillow must be maintained between the legs if Thompsons prosthesis was done to prevent dislocation. Antibiotics are given prophylactic – also hydration, output and nutritional status must be monitored.

Footner (1992:176) supports the above, and states that most patients believe that the nurse has to do everything for them when in hospital. The patient must be encouraged to be independent as far as possible especially when pain is reduced. The patient's desires and wishes to mobilize must be considered, as to rehabilitate a patient who has no wish to walk more than

they did before injury will not be successful. The family must take an active role in the care from the time of admission and this will prepare them for discharge.

2) Fractures to the shaft of the femur

According to Nayagam, et al. (2001:699) the limb is left free post operatively. Exercises are begun as soon as possible. Knee movement is regained with continuous passive motion. After a week or ten days the patient is allowed up or out of bed with use of crutches. Full weight bearing may be achieved between 4-6 weeks later depending on the individual's healing process.

Footner (1992:179) states that mobilization is begun within the first 48 hours of surgery, and that the patient must follow the instructions concerning exercises in order to prevent potential problems.

3) Supracondylar fracture

This type of fracture is best treated by conservative management. An operation is done if closed reduction fails. Post operatively knee movement are commenced as soon as possible provided that the fixation is secured. The patient may be mobilized out of bed within a day or two. Unprotected weight bearing is not permitted until the fracture has consolidated in 12 weeks time Nayagam, et al.(2001:702).

Rehabilitation

Caring for these patients and rehabilitating them demands exacting work not only from nurses but from a lot of people both within and outside the hospital. Although few patients may never recover the physical status that they

enjoyed before their injury, many are restored to suprising activity and are able to enjoy their lives.

Footner (1992:179) states that with a trapeze the patient can move about in bed, for example from lying to sitting up position, relieve pressure at the back or be able to reach personal items from her locker. Adjustable beds that can be lowered, makes it to be possible for a patient to move in and out of bed, for example from lying in bed to standing position. The patient is initially allowed only limited activity, but as healing takes place the activities are gradually increased. Programmes of intensive and strenuous exercises are necessary in order to prepare for the patient's return to work. The programme must include periods of controlled rest to avoid both general fatigue and undue strains of the injured part. Control rest must thus be used therapeutically throughout the patient's treatment from the moment he enters the hospital until his return to normal life.

Watson (1992:916) supports the above and states that passive, active and resistive exercises of the affected limb are introduced and increased gradually while still bed bound. Exercises are designed to prevent complications and to prepare muscles used in walking, namely muscles of the upper and lower limb. In this way the patient is being prepared for the use of crutches or a walker. Before being allowed up, the head of the bed is elevated so that he may adjust to having his head in the upright position after being flat and in countertraction position for some time. Elevation must be gradual in order to prevent feelings of faintness. During ambulation it is essential that the patient is taught to stand unassisted before actual walking is attempted. When relearning to walk, the patient may need prompting to maintain an erect posture. The degree of flexion of his femur and leg must be increased when raising a foot off the floor to take a step in order to overcome the tendency to shuffle.

Physical assistance and support is maintained until it is evident that the patient can safely manage to get in and out of bed as well as walk on his own. Crutches must be of such length as to allow weight to be taken on the hands and not on the axillar in order to prevent crutch palsy. He must be taught how to move up and down steps; the sound leg is moved first onto next step followed by the affected leg. When going down the steps he should move the affected leg first followed by the sound leg. When using crutches the patient must look ahead and not at his feet. Resumption of his former occupation and activities will depend on his progress in relation to mobility and independence.

It is important to remember that old age in itself is not a deterrent to active treatment and rehabilitation which aims at restoring the patient to his own home and to her place in society. Teamwork is very important which must include the family at an early stage. This is not always easy as family usually shift the responsibility of caring for the patient to the hospital staff, for example in the case of the elderly. On the other hand nurses feel it is easier to wash the elderly than to help with the patient's fumbling attempts or feed her because of her slow, messy and wasteful attempts which tend to interrupt ward routine.

Review at the clinic after discharge is continued until fully rehabilitated. This is supported by Nayagam, et al. (2001:686-702) as well as Smeltzer and Bare (1996:1926-1935).

2.9 Complications and its management

Nayagam, et al. (2001:555-570) divide the complications into the following categories.

1. Early complications

a) Vascular injury

The artery may be cut, torn, compressed or contused either by the initial injury or by the jagged bone fragments. The manifestation of this will be numbness in the toes, the limb will be cold and pale and the pulse weak or absent. Management will be removal of all bandages or splints, if reduction of the fracture is not done. Circulation is monitored. If there is no improvement in the manifestation an angiogram is done to confirm vascular injury, and exploration is done in theatre.

b) Infection

This is common with open or compound fractures where the wound is infected during the time of injury. Post traumatic wound infection is now the most common cause of chronic osteitis. This is managed by wound debridement soon after the injury followed by wound dressings in the ward and prophylactic antibiotics as well as tetanus toxoid.

c) Haemarthrosis

This follows a fracture that involves a joint or around the joint just like in supracondylar fracture. The joint is usually swollen or tense and the patient resists any attempts at moving the knee joint. Knee aspiration is done before the fracture is reduced.

2. Late complications

a) Delayed union

According to Sarkin (1997:296) this means that a fracture does not unite within the average period of time acquired. For example, fractures of the lower limb takes about 12 weeks to unite on the average. Although union will be still progressing, physiologically the process will be very slow. This may be due to the following :-

- Poor treatment due to inadequate immobilization of the fragments, over-distraction of fragments caused by excessive traction which creates a fracture gab or over stripping of the periosteum and soft tissue during internal fixation.
- Sepsis at the fracture site as in compound fractures.
- Poor blood supply in cases of fractured neck of femur due to damage of capsular arteries or in segmental fractures. This is managed by adequate immobilization of the fracture; for long standing delayed union, fixation and bone graft is done or example where the delay is more than 6 months.

b) Malunion

Here the fragments are joined in an unsatisfactory position due to failure to reduce a fracture adequately and to hold the fracture reduction during the healing process. Also it may be due to gradual collapse of communicated or osteoporotic bone. This is managed by reducing the fracture to as near the anatomical position as possible.

c) Non union

In this case the process of repair has come to an end and it becomes apparent that the fracture will never unite without intervention. Thus internal

fixation and bone graft is done. If the bone ends are sclerosed and there is avascular scar between the fragments, extensive excision is done and the gap is dealt with by bone advancement using the illizarov technique.

d) Joint stiffness and muscle wastage

This may happen due to injury at the same time when patient sustained injury, or due to treatment for example, prolonged immobilization. This is managed by early physiotherapy.

e) Refracture or failure of the implant

This is due to early weight bearing so that the implant reaches its fatigue limit too soon. The patient must avoid exerting stress on the affected leg by delaying weight bearing and using crutches for the first 3 months.

Footner, (1992:176) and Smeltzer and Bare (1996:1927-1935) support these views.

2.10 CONCLUSION

In this chapter information was collected from different books, journals and research papers and was discussed under different topics that relate to rehabilitation and fractures of the femur while being hospitalized.

2.11 THEORETICAL FRAMEWORK

2.11.1 Introduction

This study will be based on the SR Callista Roy Model: Theory of Adaptation. The adaptation model of Roy sees the patient as a unified whole adapting to changes in the environment. Within the environment, the client interacts with others; including the nurse, doctor, and physiotherapist. This interaction influences adaptive capabilities.

There are four elements that are basic to Roy's Model. This is person, goal of nursing, health and the environment. Adaptation occurs in four adaptive modes of behavioural responses that indicate effective or ineffective responses to environmental stimuli, namely physiologic, self concept, role function and interdependence modes.

2.11.2 Basic elements

1) Person

Man is a biopsychosocial being who is constantly interacting with his changing environment. Man use innate and acquired mechanisms that are biological, psychological and social in origin to cope with this change. Clark (1999:82) states that the person is viewed as a totality or an adaptive system which is interacting with the environment.

2) Goal of nursing

Nursing is concerned with man as a total being at some point along the health-illness continuum. This nursing goal is promotion of adaptive responses in relation to the four modes of adaptation.

3) Health

This is defined as a state of being and becoming an integrated and whole person. The integrity of the person is expressed as the ability to meet the goals of survival growth, reproduction and mastery.

4) Environment

Environment are all conditions, circumstances and influences that surround and affect the development and behaviour of a person or group. Stimuli from within the person and from around him represent the element of the environment.

2.11.3 Modes of adaptation

1) Physiological mode

This represents the physical response to environmental stimuli. Basic needs of this mode include nutrition, activity and rest as protection against trauma. These needs must be kept in a balance as humans respond to the environment (George, 1995:258:26). Clark (1999:83) supports this view by stating that assessment of adaptation in this mode includes consideration of how well these needs are met, as well as the level of function of the four complex processes that help to maintain integrity, namely sensory function, neurologic function, endocrine function and fluid and electrolyte balance mechanism.

Occurrence of disability presents a severe challenge to the maintenance of these needs. Immobility may lead to complications like muscle atrophy or joint stiffness.

2) Self concept

This encompasses the conscious and unconscious thoughts, as well as beliefs, attitudes and values that a person has regarding himself and his world. Thus self concept is influenced by one's own image, feedback from significant others as well as success in performing social role and responsibilities (George, 1995:260). Clark (1999:83) states that knowledge of oneself as a unified being is the goal of adaptation in this mode. She further states that self concept has two perceptual aspects, the physical self and the personal self. She describes physical self concept as consisting of body sensation and body image, where body sensation refers to the ability to experience oneself as a physical body with specific feelings such a exhaustion and well-being. Body image is one's views of and attitudes towards the physical self, for example as fat, attractive, or physically strong.

Personal self consists of three components which are:

a) Self-consistency: activities of this component are directed towards maintaining a consistent self-organization and avoiding disequilibrium. It also reflects one's actual performance or capabilities.

b) Local self : includes perceptions of how one would like to be.

c) Moral – ethical – spiritual self: incorporates one's beliefs and values that help form one's self concept.

3) Role function

According to Clark (1999:83) this mode involves adaptation in interpersonal interactions to maintain social integrity. Thus the patient engages in two types of behaviour in this mode. This is instrumental or expressive behaviours. Instrumental behaviours involve activities designed to fulfil the

expectations associated with one's social role for example a nurse who helps new admissions with self-care and comforts him. Expressive behaviour reflect the feelings and attitudes of the role occupant about the role. For example patient who verbalizes that he cannot do self-care or exercises shows this behaviour as related to the patient or sick role.

George (1995:260) states that a person regulates his performance of duties according to varying positions in society. A person has three different roles;

Primary role which determines the majority of a person's behaviours, and defined by a person's age, sex and developmental stage.

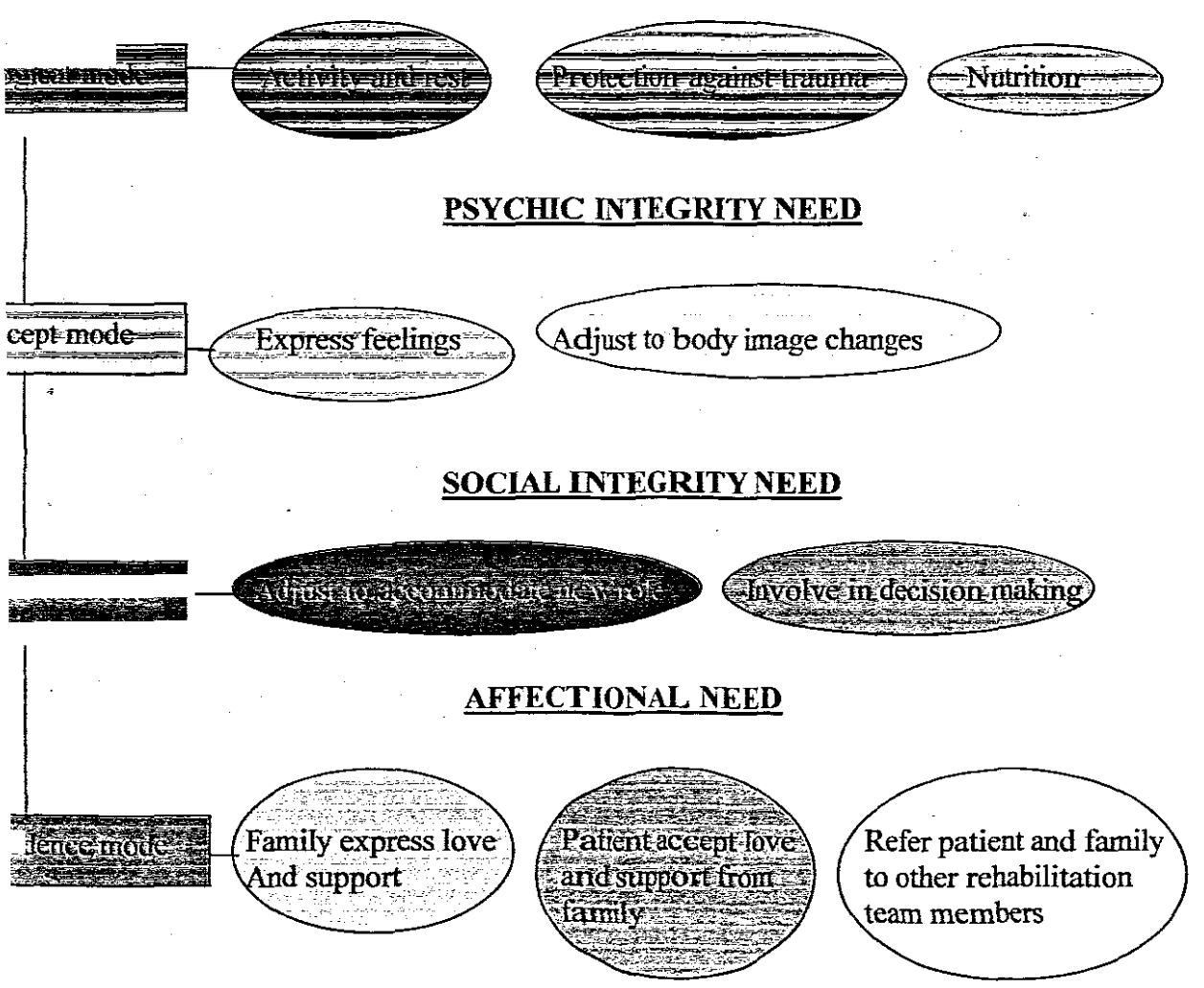
Secondary role – carry out the tasks required by the stage of development and primary role.

Temporary role are freely chosen and may include activities related to hobbies. Behaviours in this mode can be instrumental thus they are usually physical, have long term orientation and focus on role mastery, while expressive behaviours include feelings or attitudes which are usually emotional and seek immediate response.

4) Interdependence mode

The affectional needs are met in this mode. It also identifies the patterns of human love, value, affection and affirmation. This process occurs through interpersonal relationships in both individual and group level (George, 1995:260).

Clark (1999:84) states that the goal of this mode is affectional adequacy or the ability to be comfortable in nurturing relationships with others. Adaptation is reflected by the ability to accept love and respect others as well as, in return, contributive and receptive behaviour. Therefore a relationship with significant others and with those who are the components of one's support system contributes to meeting the need for affectional adequacy.



Modified conceptual framework from Callista Roy's adaptation model:George (1995:251-276)

Adaptation level

According to George (1995:254), the ability to cope is influenced by three categories of stimuli: focal, contextual and residual stimuli.

Focal stimuli includes environmental change to which the patient attends and which she/she must deal with.

Contextual stimuli: these are other stimuli in the situation that influence the patient's response to focal stimuli, for example, stress focal stimuli will be injury which is the current source of stress. Other factors like worry about loss of income, work or role would be contextual stimuli affecting the client's response to the focal stimuli.

Residual stimuli: these are the past experiences, beliefs and values that affect the current responses to focal stimuli, for example, painful memory about previous hospitalisation where one was unable to pay bills or surgery which was complicated. Thus once the residual stimuli are recognised as influencing the situation they become focal or contextual stimuli.

Therefore adaptation occurs when the total stimuli impinging on the patient/falls within the patient's zone of adaptive capability. One needs to be aware of the nature of the stimuli operating in a situation. These events are beyond the patient's adaptive capacity (Clark, 1999:83).

Adaptation within the four modes is initiated and controlled by the following two coping mechanisms:

Regulator mechanism - This is innate and automatic coping mechanisms which influences behaviour within the physiological mode. For example,

automatic physiologic responses to environmental stimuli like clotting or haematoma formation.

Cognator mechanism: Its activity is directed towards adaptive response to social and psychological as well as physiological stimuli. Thus its activation reflects one's perception of the environmental stimuli (Clark, 1994:83).

2.11.4 Application

Nursing intervention in this model attempts to alter the stimuli to fall within the client's adaptation level or to the patients response to stimuli. Nursing assessment begins with assessment which involves looking for evidence of maladaptive behaviour. Assessment should involve determining the 3 types of stimuli. This is focal, contextual and residual which influence the maladaptive behaviour.

Physiologic mode

The nurse must ensure that patient has an adequate and nutritious diet which will promote wound and fracture healing. Exercises are encouraged to prevent complications of bed rest and immobility due to traction. There must be a balance between rest and exercises in order to prevent fatigue.

Self concept

The patient is allowed to express feelings regarding his injury and management. This will also help him to adjust to bodily changes as misconceptions are clarified. Also the family is allowed to express feelings regarding difficulties posed by the injury.

Role function

This encourages the patient to continue with his roles while accommodating his new role of being a patient. If he is a father, the family must still involve him in decision-making. This will boost his morale and he will be eager to go back home.

Interdependence mode

The family must express love and support towards the patient. The family and patient must be referred to other members of the rehabilitation team as needed, for example in the case of social problems, the patient is referred to a social worker.

2.11. 5 Conclusion

Sr Callista Roy's theory sees a person as a living system that is in constant interaction with his environment. Thus a change in the environment provides a threat to one or more of the adaptation modes, namely physiological needs" self concept, role mastery or interdependence modes. This hinder successful adaptation to the environment. Therefore a nurse plays a major role in assisting the patient to maintain and enhance adaptive behaviour and to change ineffective behaviours to be adaptive.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter the research methodology will be discussed under the headings research design, target population, sample and sampling techniques, research instrument, validity and reliability, pilot study and ethical consideration.

3.2 RESEARCH DESIGN

The research design chosen was a descriptive survey. This method aimed at investigating the attitude of orthopaedic patients with a fractured femur towards rehabilitation in hospitals after injury. It also aimed at identifying problems encountered during the rehabilitation programme.

3.3 TARGET POPULATION

This is the entire population in which the researcher is interested and would serve to generalize the result of the study (Burns & Grove, 1997:206). All patients admitted with fractured femurs in orthopaedic wards were afforded a chance to be included in the study.

3.4 SAMPLE AND SAMPLING TECHNIQUE

A sample is part of a whole or a subset of a defined population (Brink, 1996:133).

3.4.1 Selection of patients

A purposive sampling technique was used. Every patient with a fractured femur were purposely selected until a total number of 25 patients were reached.This was done because each orthopaedic ward admit patients with different types of fractures. Each ward had about 3-6 patients with fractured femur and all of them were choosen for the study. Some patients were not interested to be part of the study so other patients with fractured femur were selected in their places.

Selection was as follows:
Ward 1-15 patients.
Ward 2 –6 patients.
Ward 3 4 patients.

3.5 RESEARCH INSTRUMENT

The instrument consisted of questions for patients with fractured femurs who were hospitalised. It consisted of open and closed-ended questions in the form of structured and unstructured questions. Respondents were interviewed face to face by the researcher. It took about 30-45 minutes to interview one respondent. All respondents that were interviewed were included in the study.

3.5.1 Questions for patients with fractured a femur

The questions were divided into six (6) sections.

SECTION A : Consisted of demographic data

SECTION B : Consisted of educational history

SECTION C : Consisted of employment history

SECTION D : Consisted of history of injury

SECTION E : Consisted of family background

SECTION F : Consisted of likert scale type questions where attitude of patients towards rehabilitation were measured. The likert scale consisted of

positive, negative and neutral questions in order to list positive attitudes of respondents with fractured femurs against rehabilitation. They had to grade their attitudes according to the following levels:

- Level 1 - agree;
- Level 2 - strongly agree ;
- Level 3 - *uncertain* ;
- Level 4 - disagree and
- Level 5 - strongly disagree.

The likert scale questions were further divided into attitudes towards physical rehabilitation, psychosocial and vocational rehabilitation. The total number of questions were 66.

3.6 PILOT STUDY

A pilot study is a small scale version or trial run, done in preparation for a major study Polit & Hungler (1997:442).

The pilot study was carried out to pretest the instruments on ten (10) patients with fractured femurs to check the reliability and validity. Thus the pilot study assisted the researcher to correct errors of wording where questions seemed ambiguous, judging by the responses given by the subjects. The researcher took 30-45 minutes to interview one respondent. The result of the pilot study was that the instrument was correct and effective, so no changes were made to the questions.

3.7 VALIDITY AND RELIABILITY

The validity of an instrument is a determination of the extent to which the instrument actually reflects the abstract concept being examined Burns & Grove (1997:293).

According to Polit and Hungler (1997:448) validity is the degree to which an instrument measures what it is intended to measure.

Reliability is concerned with how consistently the measurement technique measures the concept of interest (Burns & Grove, 1997:291). Polit and Hungler (1997:445) say that reliability is the degree of consistency or dependability with which an instrument measures the attributes it is designed to measure.

The reliability and validity of the instrument was ensured because an extensive literature review was done on the topic and the questions were based on the objectives of the study. Experts in the field were also consulted to check the instrument, of which they found to be reliable and valid.

3.8 ETHICAL CONSIDERATION

Permission to conduct the study was sought and obtained from the KwaZulu-Natal Department of Health; Secretary for Health; Medical Superintendent of the hospital and Director of Nursing Services, which was verbal. Informed consent was obtained from each respondent. They were assured of anonymity and confidentiality regarding information gathered. Each respondent was asked to partake voluntarily and could withdraw from the study whenever he or she wished to do so.

3.9 DELIMITATION OF SCOPE OF THE STUDY

This study was confined to KwaZulu-Natal region "F" hospitals that were admitting orthopaedic patients with fractured femurs.

3.10 CONCLUSION

This chapter served as a compass, indicating how the whole research methodology process was carried out. In the following chapter data will be presented, analysed and interpreted using tables, pie graphs and histograms.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA FOR AN INVESTIGATION OF THE ATTITUDE OF ORTHOPAEDIC PATIENTS WITH FRACTURED FEMURS TOWARDS THEIR REHABILITATION IN HOSPITAL AFTER INJURY

4.1 INTRODUCTION

In this chapter analysis and interpretation of data will be done.

4.2 SECTION A : DEMOGRAPHIC DATA

This section seeks to ascertain age distribution, gender, marital status and area of residence of the respondents involved. These were included because it was thought that they would be of value in the patient's current circumstances and might have an influence on the attitude of patients towards rehabilitation.

4.2.1 Item 1 : Age group

Table 4.1 : Age distribution

Age in years	Number	Percentage
16-25	9	36
26-35	7	28
36-45	2	8
45 and above	7	28
Total	25	100

Table 4.1 shows that 36% (9) respondents were between ages 16-25 years, 28% (7) between 26-35 years, 28% (7) were above 45 years and only 8% (2) were between 36-45 years. It is clear from the above result that most of the respondents were still young, at their productive age, while some may be still schooling and others may be bread winners.

Age tasks complicate rehabilitation and compound the adjustment process. Some were still adolescents with different personal problems, maladjustments, turmoil or identity crises. This in itself might influence the rehabilitation process negatively.

This might necessitate extensive rehabilitation in order to prevent any negative attitudes and complications which might hinder them from going back to their previous employment or to school.

4.2.2 Item 2: Gender

Table 4.2 : Sex distribution

Sex Distribution	Number	Percentage
Male	19	76
Female	6	24
Total	25	100

Table 4.2 indicates that 76% (19) respondents were males and 24% (6) were females. This indicates that males are more prone to injury than females. This might be due to the fact that men live a more active life. Most of them are working, may be involved in violence or high consumers of alcohol. All these factors may lead one to be unco-operative thus hindering rehabilitation

process eg due to influence of alcohol or withdrawal symptoms from substance used .

4.2.3 Item 3: Marital status

Figure 4.1 : Marital status

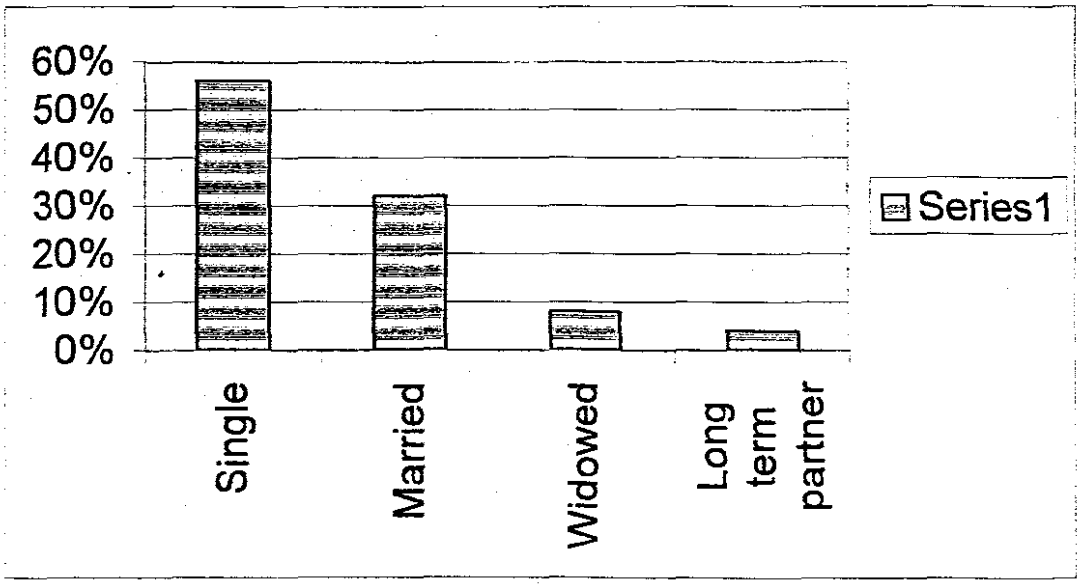


Figure 4.1 indicates that 56% (14) respondents were single, 32% (8) married, 8% (2) widowed and only 4% (1) had a long term partner. This might cause problems because an injured person needs support, guidance and encouragement from a partner. This might also result in them having *negative attitudes towards rehabilitation. This may be due to a carefree life* single people may live.

If complications occur, like limb deformities, it may lead to depression or failure to get a partner. This may hinder success in the rehabilitation process. In their research findings Siyothula and Kubheka (2002:77) obtained the same results as above. Most of the respondents (62.5%) were single and this

might reduce the chances of getting married because of disability which may result in negative attitudes towards rehabilitation. This may lead to a low body image and self-esteem, causing bad relationships and negative attitudes towards significant people in a patient's life.

4.2.4 Item 4: Area of residence

Figure 4.2 : Area of residence

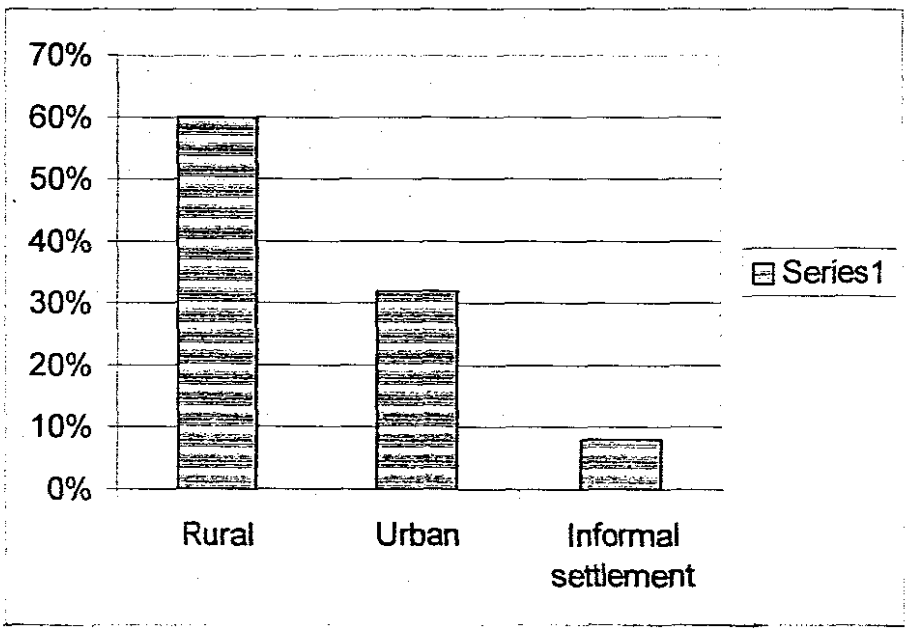


Figure 4.2 reveals that most respondents 60% (15) were from rural areas; 32% (8) were from urban areas and only 8%(2) were from informal settlements.

Injuries occurring in the rural areas and urban areas are almost the same because of violence which is common in both places. Patients from rural areas are often referred to far away hospitals for further management because of inadequate resources in their areas. They often lack family support and frequent visits by families.

On discharge they experience many barriers like bad roads, poor transport and problems in entering their homes. They need extensive rehabilitation before being discharged to ensure that they are able to re-integrate well in their communities. They will also need more support from the rehabilitation team in order to generate a positive attitude towards their rehabilitation.

4.3 SECTION B. : EDUCATIONAL HISTORY

This section was included because it might affect proper understanding of instructions during rehabilitation since team are members made up of different races.

4.3.1 Item 5 : Educational status

Table 4.3 : Educational status

Standard passed	Number	Percentage
Illiterate	6	24
1-4	5	20
5-8	9	36
9-12	5	20
Total	25	100

Table 4.3 reveals that 36% (9) respondents were between standard 5-8, 24% (6) were illiterate, 20% (5) were between standards 1-4 and 20% (5) were between standards 9-12.

This is a an indication that most of the respondents had a low standard of education, as 44% (11) were between illiterate to standard 4. Only 20% (5) were well educated between standard 9-12.

The low standard of education might cause a problem in rehabilitation because they might fail to understand instructions given by the rehabilitation team, since they are multilingual. This may result in many complications as well as a negative attitude towards the rehabilitation programme.

Mbeki (1997:37) states that there is a high illiteracy rate and low skills with adults from rural areas, caused by their exclusion from educational opportunities because of the environment which does not facilitate integration.

4.4 SECTION C. : EMPLOYMENT HISTORY

This section was included because it might influence rehabilitation since employment enhances self-esteem and positive attitude towards life.

4.4.1 Item 6 : Employment

Figure 4.3 : Employment status before injury

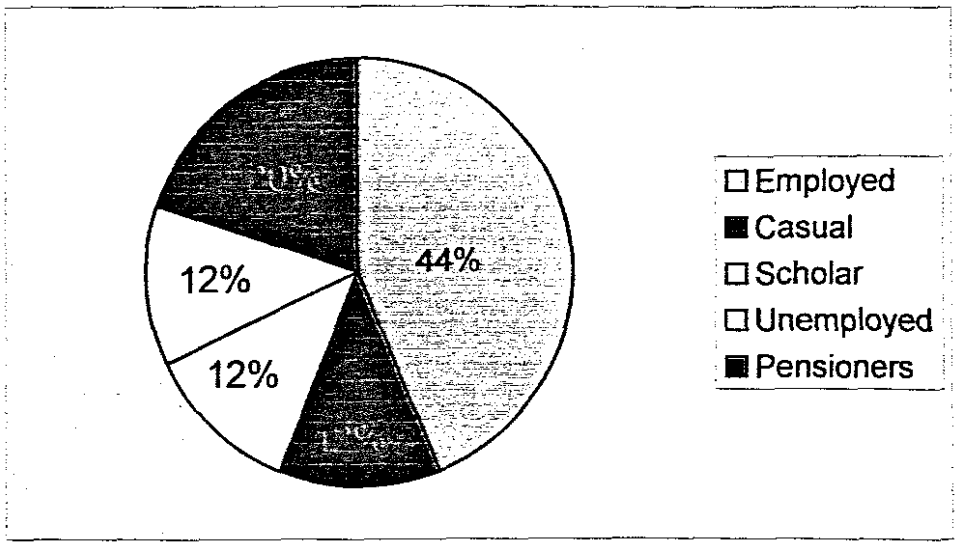


Figure 4.2 shows that 44% (11) respondents were full time workers; 20% (5) were pensioners, 12% (3) were casual workers during the time of injury; 12% (3) were unemployed and 12%(3) were still scholars.

These patients will need extensive rehabilitation to enable them to continue with their life. The employed need to go back to their employment in order to cater successfully for their families. Kubheka and Uys (1995:47) discovered that most disabled clients are unemployed due to a low standard of education and negative attitudes of employers towards employing disabled people.

4.5 SECTION D. : HISTORY OF INJURY

This section was aimed at identifying the time of injury, mechanism, and characteristics of injury, ability to walk after injury and if the purpose of treatment was discussed as well as type of treatment received. All the above items might influence the patient's attitude towards rehabilitation.

4.5.1 Item 7 : Time of injury

Figure 4.4 : Time of injury

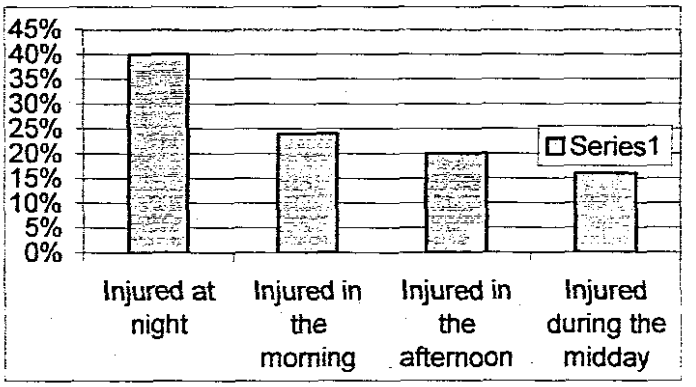


Figure 4.3 indicates that 40% (10) were injured at night; 24% (6) were injured in the morning, 20% (5) in the afternoon and 16% (4) were injured during midday.

This shows that most of the injuries occur at night and in the morning. This may be due to poor visibility during this time, for instance enabling gangsters to commit crimes easily and causing violence without being seen. Car accidents are also common during this time because most people wear dark colours thus are not easily seen by the drivers. Injuries are also due to walking in the dark where there is no light.

4.5.2 Item 8 : Mechanism of injury

Figure 4. 5 : Mechanism of injury

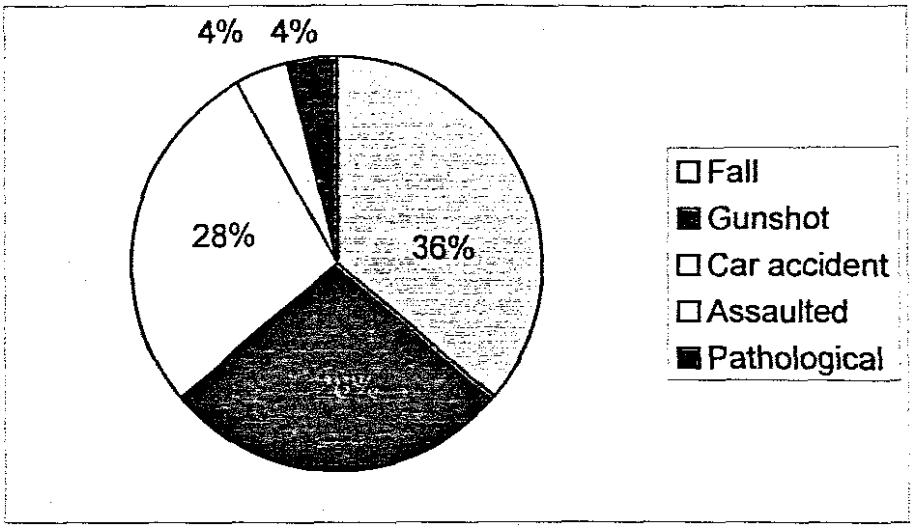


Figure 4.4 shows that 36% (9) of the respondent's injury was due to fall; 28% (7) due to gunshot; 28% (7) were involved in a car accident as a driver, passenger or pedestrian; 4%(1) was assaulted and lastly 4%(1) was a pathological fracture. Out of the 36% (9) that were injured due to fall – 20% (5) were mostly elderly. This may be caused by poor sight and unstable gait.

Of the 64% (16) remaining respondents – 56% (14) injuries were due to car accident and gunshot, which have in fact become such an everyday phenomena that they are now accepted as an integral and almost natural part of daily existence. These accidents are reported widely in the media like radio, television and newspapers.

Mechanisms of injury might influence one's attitude towards rehabilitation, especially those who sustained gunshot injuries because of anger and frustration since some of them were shot as innocent bystanders.

4.5.3 Item 9: Site of injury

Figure 4.5 : Site of injury

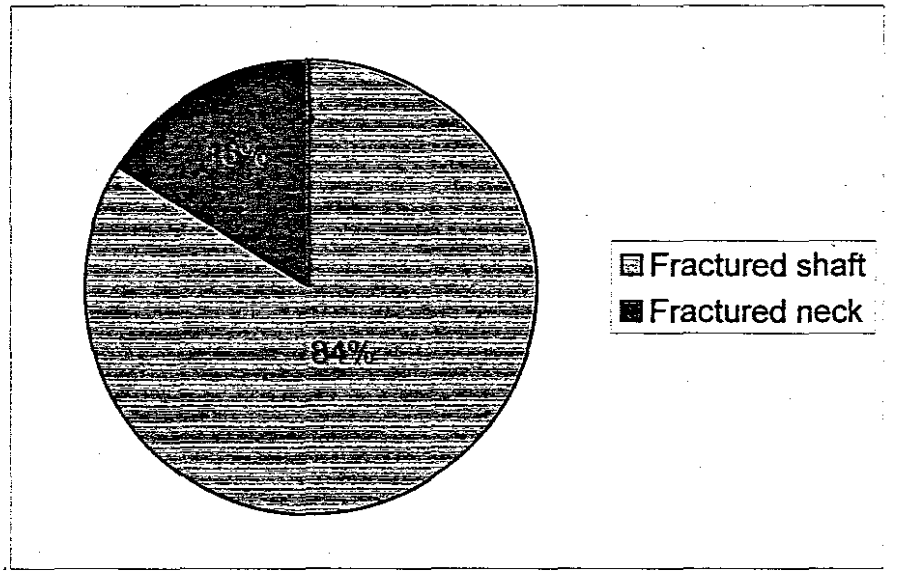


Figure 4.5 shows that 84% (21) respondents had a fracture shaft of the femur and only 16% (4) had a fractured neck of the femur. Fractures of the shaft of femurs are mostly common in young people, whereas fractured necks of femurs are common in elderly people Nayagam, et al.,(2001:684). It is true in this study since most of the patients were young. They are also the respondents that usually display a negative attitude towards rehabilitation. According to Trombly (1995:19) these patients put obstacles in the way of discharge in order to continue with hospitalisation.

4.5.4 Item 10 : Characteristics of the injury

Table 4.4 : Characteristics of the injury

Characteristic of injury	Number	Percentage
Closed fracture	17	68
Open fracture	8	32
Total	25	100

Table 4.4 indicates that 68% (17) respondents had a closed injury and only 32% (8) had open or compound fracture. Closed fractures heal very well and can be treated conservatively with traction or internally fixed for early ambulation without any complications.

Open fracture : It is difficult to be internally fixed because of complications that may occur later. During injury this fracture provides a means for bacteria to gain entry into the body leading to infection or tetanus, due to bacillus gaining entry through the penetrating wound. Gas gangrene due to extensive muscle damage as well as fat embolism may occur.

4.5.5 Item 11 : Were you able to walk after the injury?

Table 4.5 : Ability to walk after the injury

Ability to walk	Number	Percentage
No	21	84
Yes	4	16
Total	25	100

Table 4.5 reveals that 84%(21) respondents were unable to walk after the injury and `6% (4) were able to walk. Loss of function or abnormal mobility of the affected part is one of the signs and symptoms of a fracture. If the patient is able to walk after injury it mean, the injury was mild and will be well rehabilitated and discharged home early.

4.5.6 Item 12 : Purpose of treatment discussed with patient

Figure 4.7 : Purpose of treatment discussed

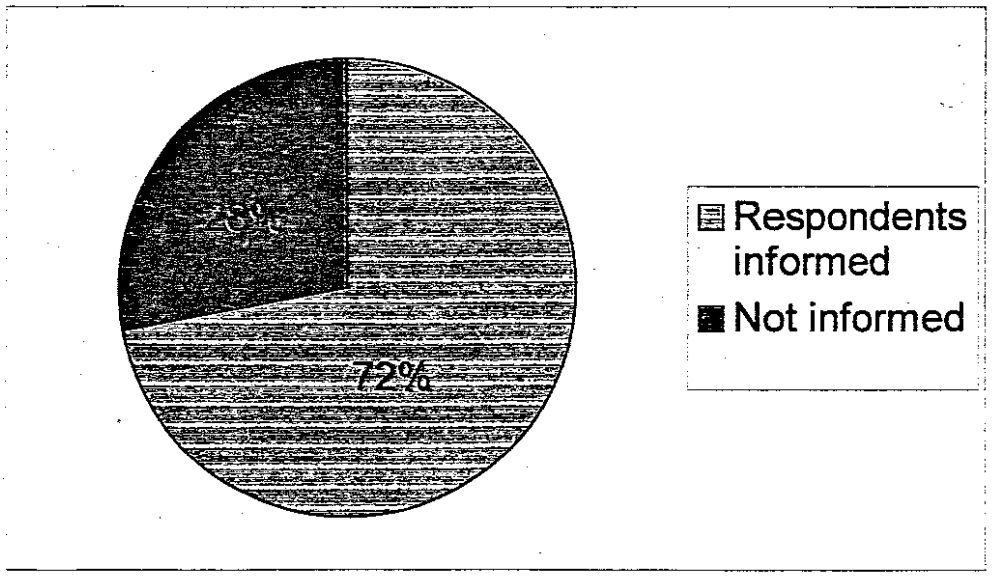


Figure 4.6 indicates that 72% (18) respondents were informed about the purpose of treatment and only 28% (7) were not informed.

Being informed allows one to adjust to one's new situation and sudden drastic change in one's lifestyle. The patient has to learn to accept the condition without prior warning as well as discomfort and limitation of normal activities of life. Explanation of the purpose of treatment relieve them of the fear of the unknown and results in a positive attitude towards rehabilitation. Mahingly (1993:11) says patient and family education is very important during rehabilitation.

4.5.7 Item 13 : Type of treatment received

Table 4. : Treatment receives

Treatment received	Number	Percentage
Skin traction	10	40
Back slab	10	40
Thomas splint traction	5	20
Total	25	100

Table 4.7 reveals that 40% (10) respondents were treated by skin traction, Another 40% (10) by backslab and 20% (5) by a Thomas splint. A Thomas splint is the initial treatment they receive soon after admission.

Table 4.7 : Operation done

Type of operation	Number	Percentage
Internal fixation	17	68
Debridement / External fixation	8	32
Total	25	100

Table 4.8 above, shows that 68% (17) respondents had operations for internal fixation, while 32% (8) were debrided and put on traction again, or had external fixation done.

A fractured shaft of a femur can be treated by non-operative or operative measures. Non operative measures include a Thomas splint, traction or skeletal traction with Denham pin. Operative measure is done by insertion of

an intrameduliary nail or bone plate and screws. Thus the patient can be *discharged soon after the operation, once they are stable with ambulation* and are aware of what to do or not do Footner (1992: 175).

Patients with a fractured neck of a femur are treated by skin traction pre-operatively then internally fixed using either pin and plate or Thompsons prosthesis. Since this type of fracture is common in the elderly, operative measures encourage early ambulation and thus prevent complications of bed rest which may be fatal Nayagam, et al. (2001:684).

4.5.8 Item 14 : Sent to theatre for operation of your limb soon after admission

Figure 4.8 : Duration taken before operation was done

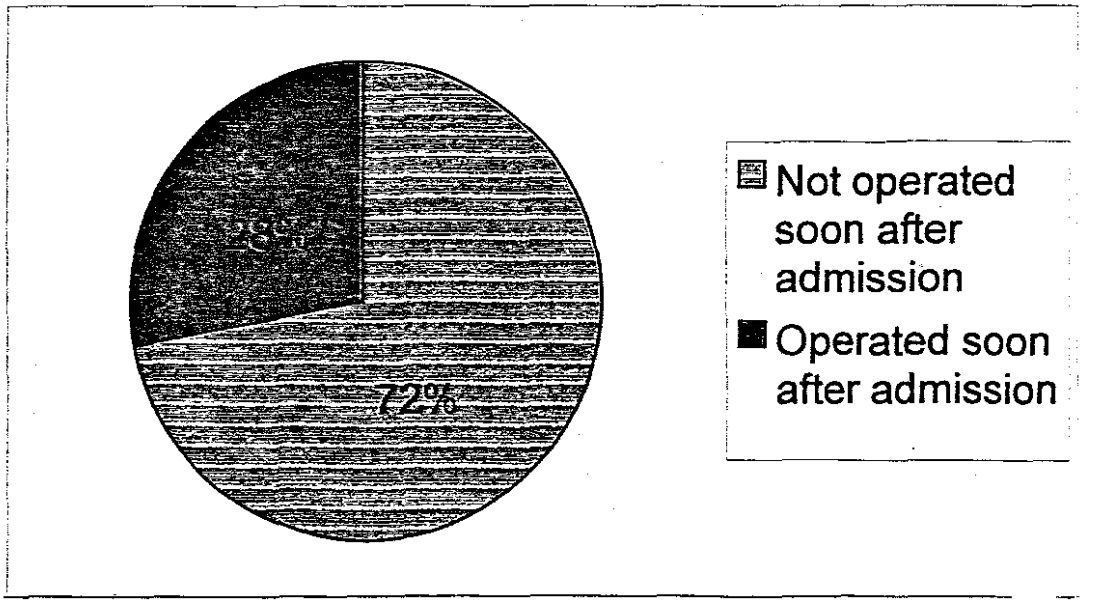
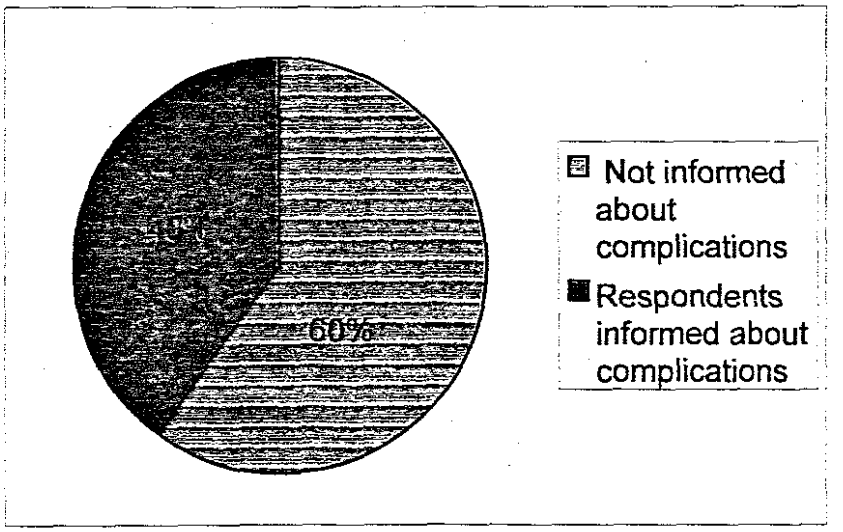


Figure 4.9 indicates that 72% (18) were not operated on soon after admission while 28% (7) were operated on within the first 6 hours of being admitted. The new trend today is to internally fix the fractured femurs for early ambulation and to prevent long stay in the hospitals.

4.5.9 Item 15 : Information given about complications that may occur after injury

Figure 4.9 : Informed about complications



The above figure 4.10 indicates that 60% (15) respondents were not informed about complications and only 40% (10) were informed. Patients that were not informed about the complications that may occur are likely to be unco-operative and this may influence the rehabilitation process negatively eg failure to do excersises may lead to muscle wasting. Those that are informed about everything might co-operate well with care plan or rehabilitation programmes.

4.5.10 Item 16 : Information about rehabilitation process given on the first day of admission

Table 4.8 : Information about rehabilitation given on admission

Information about rehabilitation	Number	Percentage
No	18	72
Yes	7	28
Total	25	100

Table 4.7 reveals that 72% (18) of the respondents were not informed about anything while 28% (7) were informed about rehabilitation. Being informed helps one to understand the injury and to know what to expect during the rehabilitation process. Thus one feels less anxious and has a greater sense of control whereas if he/she is not informed earlier, it creates problems since he/she is not aware of the importance of rehabilitation and treatment offered. Nayagam (2001:700) states that early physiotherapy is important inorder to prevent complication like stiffness of joint.

4.6 SECTION E : FAMILY BACKGROUND

This section is aimed at ascertaining the relationship between the respondent and the family before injury. If the family was not supportive they will not be supportive even after discharge which may hinder the rehabilitation process. The family's ability to cope with the crisis of having an injured member and willingness to retain their family membership roles is crucial in the success of the rehabilitation programme.

4.6.1 Item 17 : Relationship with the family before injury

Table 4.9 : Relationship with the family

Relationship with family	Number	Percentage
Stable	25	100
Unstable	0	0
Bad	0	0
Total	25	100

Table 4.8 shows that 100% (25) all respondents had stable relationships with their families before injury. This may result in a positive attitude towards the rehabilitation because their relationship was good and it is hoped that this will be maintained after discharge. Also the family members will also be a source of strength when the patient experiences frustration.

4.6.2 Item 18 : Availability of caregiver at home after discharge

Table 4.10 : Caregiver after discharge

Caregiver at home	Number	Percentage
Family	18	72
Spouse (wife/husband)	6	24
Friend	1	4
Total	25	100

According to Table 4.9, 72% (18) respondents depended on family to be their caregiver, 24% (6) depended on spouses and only 4% (1) had a friend as a caregivers. This means that most respondents had family to serve as a back-up learner and will also provide support that is useful to the respondents. The family also assist the respondent to comply with the rehabilitation programme. The family's ability to cope with crises of an injured

member of the family and their willingness to retain his/her role is crucial to the success of rehabilitation Trombly (1995:19).

4.7 : SECTION F : ATTITUDE TOWARDS REHABILITATION

This section seeks to identify the attitude of patients with a fractured femur towards rehabilitation.

This was included because rehabilitation aims to help patients to achieve maximum physical and psychological fitness. It offers assistance with the learning of skills needed in everyday activities, occupational guidance and with psychological readjustment Footner (1992:232).

This section involved a likert-type scale consisting of five levels of attitude, starting from 1-5 scores. The patients were to grade their attitudes according to the following levels :-

Level 1 – agree; level 2 - strongly agree ; Level 3 – uncertain; Level 4 – disagree and level 5 – strongly disagree.

The likert scale was further divided into three (3) headings namely :- physical rehabilitation, psychosocial and vocational rehabilitations. These headings are very important for rehabilitation.

Each respondent had to grade his/her attitude towards the rehabilitation that was provided during rehabilitation.

4.7.1 Attitude towards physical rehabilitations

Table 4.11 : Attitudes towards physical rehabilitation

Item No.		1	%	2	%	3	%	4	%	5	%
19	**Physical environment was conducive to health, recovery and independence that is cleanliness, floors non-slippery, bed firm and adjustable**	**5**	**20%**	**4**	**16%**	**3**	**12%**	**6**	**24%**	**7**	**28%**
20	Rehabilitation to be commenced on admission to the hospital.	5	**20%**	4	**16%**	3	**12%**	6	**24%**	7	**28%**
21	Rehabilitation to be commenced after discharge	1	4%	-	-	8	32%	11	44%	5	20%
22	Rehabilitation to be commenced only when fracture has healed because of pain	12	48%	3	12%	8	32%	2	8%	-	-
23	Nursing staff should do everything for me e.g. self-care	9	36%	6	24%	-	-	7	28%	3	12%

24	Traction was well *maintained re sand* bags hang freely and no bumping on *them by the staff.*	15	60%	5	20%	2	8%	2	8%	1	4%
25	Bandages were not applied too tight.	20	80%	3	12%	-	-	1	4%	1	4%
26	Affected leg as well supported to prevent external rotation and angulation.	20	80%	3	12%	2	8%	-	-	-	-
27	Nurses were gentle when handling the affected limb.	17	68%	3	12%	1	4%	4	16%	-	-
28	Nurses encouraged me to actively participate in my care.	18	72%	5	20%	-	-	2	8%	-	-
29	Physiotherapist *were gentle when* exercising my limb.	6	24%	3	12%	3	12%	12	48%	1	4%
30	Active exercises of *all the joints that are* not affected should be done at least twice a day.	6	24%	1	4%	2	8%	16	64%	-	-
31	Need to perform static muscle exercises of the immobilized limb every four hours.	6	24%	-	-	5	20%	14	56%	-	-

32	Need to alternate contraction and relaxation of the quadriceps muscles for 5 minutes hourly.	2	8%	1	4%	6	24%	14	56%	2	8%
33	Strengthening of muscles of the upper arm in readiness for crutch walking immediately after injury is necessary.	6	24%	1	4%	4	16%	13	52%	1	4%
34	Exercises must be *gradually increased* e.g. distance walked.	5	20%	2	8%	2	8%	15	60%	1	4%
35	Physiotherapist were gentle and supportive when teaching crutch walking.	9	36%	3	12%	2	8%	10	40%	1	4%
36	Should be able to move in and out of bed independently when ambulated.	8	32%	4	16%	2	8%	11	44%	-	-
37	Need to continue with exercise program in absence of the rehabilitation team.	8	32%	3	12%	2	8%	11	44%	1	4%
38	It is important to follow the rehabilitation *regime as taught.*	6	24%	3	12%	2	8%	10	40%	4	16%

39	Complications may arise due to inactivity or non-compliant.	7	28%	3	12%	2	8%	13	52%	-	-
40	Was given good advice about the Dos and don'ts at home e.g. non weight bearing of the affected limb, climbing up and down the stairs.	17	68%	4	16%	1	4%	3	12%	-	-
41	Rehabilitation process was not too demanding. There was a balance between exercise and rest.	5	20%	2	8%	5	20%	12	48%	1	4%

4.7.1.1 Item 19 : Physical environment was conducive to health, recovery and independence

This item was included because it could affect the rehabilitation process in a negative or positive way. Table 4.10 shows that 28% (7) respondents strongly disagree, 24% (6) disagree ; 20% (5) agree; 16% (4) strongly agree while 12% (3) were uncertain about conducive physical environment. The results show that most of the respondents displayed a negative attitude towards rehabilitation, while 28% (7) respondents disagree that the physical environment was conducive to health, recovery and independence. This can lead to failure in rehabilitation since a conducive environments lead to good recovery.

4.7.1.2 Item 20 : Rehabilitation to be commenced on the admission to the hospital

Table 4.10 reveals that 24% (6) respondents disagree; 28% (7) strongly disagreed, 20% (5) agreed; only 12% (3) were uncertain about commencement of rehabilitation on the first day.

For successful rehabilitation, it should start immediately on admission. These results clearly indicate that most respondents were negative toward rehabilitation. Delay in commencing rehabilitation might lead to many complications like pressure sores, contractures and stiffness of joints.

4.7.1.3 Item 21 : Rehabilitation to be commenced after discharge

Table 4.10 indicates that 4% (1) agree ; 44% (11) were uncertain; 12% (3) disagreed and only 20% (5) strongly disagreed to commencement of rehabilitation after discharge. Most respondents disagreed to start rehabilitation after discharge because this may lead to problems where one finds that a person with an acute injury in whom the expectation would be a full recovery is still significantly disabled a year later after his/her injury. Thus the patient has not returned to his employment or taken up the running of his/her home. This is a sign of positive attitude towards rehabilitation which is required. Rehabilitation as already explain should start on admission.

According to Davis (1994:17) rehabilitation of the patient takes place from the time of the first contact which may be at the pre-operative assessment in patients own home, at clinic or on arrival at the hospital.

4.7.1.4 Item 22 : Rehabilitation to be commenced when fractured has healed because of pain

Table 4.10 shows that 48% (12) agreed; 12% (3) strongly agreed; 32% (8) were uncertain,; and only 8% (2) disagreed to commencing rehabilitation when fracture has healed. These results indicate that respondents had a negative attitude towards rehabilitation. Since rehabilitation should commence immediately afrer admission and not when fracture has healed to prevent complications. It also means that it is important to commence early and intensive rehabilitationas it can shorten the recovery period and also result in an individual with less disability at the end. Footner (1992:232) agrees with the above mentioned that rehabilitation should start immediately the patient is admitted and is an ongoing process.

4.7.1.5 Item 23 : Nursing staff should do everything for me e.g. self-care

Table 4.10 reveals that 36%(9) respondents agree; 28%(7) disagree, 24% (6) strongly agree and only 12% (3) strongly disagree to nurses doing everything for them. These results display negative attitude towards rehabilitation since each patient should try by all means to perform self-care.

One tends to assume that all patients are naturally eager to take care of themselves. Yet most use denial in this area. They feel more comfortable when they place the responsibility for self-care on their health care providers, they play a sick role even when able to do things for themselves. Commencing self-care is very therapeutic and its one of the rehabilitation methods. Some patients end up with severe complications because of reluctance to care for themselves. This is very common with patients that sustained fractured femurs because of pain they experience. They want everything to be done for them.

4.7.1.6 Item 24 : Traction was well maintained, sand bags hang freely and no bumping on them by staff

Table 4.10 indicates that 60%(15) agree; 20% (5) strongly agree, 8% (2) disagree, 8% (2) were uncertain and 4% (1) strongly disagree to a well maintained traction.

These results seem to indicate a positive attitude towards rehabilitation. Their positive attitude may result in quick recovery and successful rehabilitation. Davis (1994:107) comments that for proper rehabilitation sands bags should hang freely and not to rest on the floor, and nurses should not bump into them.

4.7.1.7 Item 25 : Bandages were not applied too tight

Table 4.10 shows that 80% (20) agree, 12% (3) strongly agree, 4% (1) disagree and another 4% (1) strongly disagree. This is also display of a positive attitude towards rehabilitation, as the all agreed that bandages were not too tight. Bandages should be applied firmly but not too tight so that it does not interfere with blood supply or nerve supply to the limb, for example, compression of common peroneal nerve which may lead to foot drop palsy.

4.7.1.8 Item 26 : Affected leg was well-supported to prevent external rotation and angulation

Table 4.10 reveals that 80% (20) agree, 12% (3) strongly agree and only 8% (2) were uncertain. Nobody disagreed whether the leg was well supported or not. Since the leg was well supported it means correct bone alignment was maintained and medial or lateral pull was prevented. Respondents

seemed to display a positive attitude towards rehabilitation which will contribute to their quick recovery. Since they agreed that their legs were well supported.

4.7.1.9 Item 27 : Nurses were gentle when handling the affected limb

Table 4.10 reveals that 68% (17) respondents agree, 16% (4) disagree, 12% (3) strongly agree and only 4% (1) was uncertain. Most respondents agreed that the limb was handled with care by most nurses. Gentle handling prevents interruption of immobilization which could lead to slow union or delayed union. This is a sign of a positive attitude towards rehabilitation since patients will co-operate and cooperation leads to successful rehabilitation.

4.7.1.10 Item 28 : Nurses encouraged me to actively participate in my care

Table 4.10 indicates that 72% (18) respondents agreed, 20% (5) strongly agreed that nurses were encouraging them to actively participate in their care and only 8% (2) disagree to being encouraged. The respondents seems to be positive towards rehabilitation. Nurses have an important part to play in the restoration of functional activities, and should encourage patients to participate actively in their care.

4.7.1.11 Item 29 : Physiotherapist were gentle when exercising my limb

Table 4.10 shows that 48% (12) disagree, 24% (6) agree, 12% (3) strongly agree, 12% (3) were uncertain and only 4% (1) strongly disagree that the physiotherapist were gentle. This is an indication that not all physiotherapists were gentle. Being gentle on the affected limb helps to preserve the healing

process, and haematoma which is later replaced by granulation tissue and callus formation is prevented. From the above result it means that the respondents were negative towards being handled gently during rehabilitation.

4.7.1.12 Item 30 : Active exercises of all the joints including those not affected should be done at least twice a day

Table 4.10 reveals that 64% (16) respondents disagree, 24% (6) agree, 8% (2) was uncertain and 4% (1) strongly agree, seemingly most respondents displayed a negative attitude towards exercises.

Immobility even for a brief period causes musculo skeletal deterioration. This predisposes one to complications which may interfere with rehabilitation like joint stiffness or muscle wasting. Footner (1992 :17) comments that a fully understood explanation about the value of supervised exercise therapy for the affected and non-affected limbs should be done to conserve functions of joints and muscles.

4.7.1.13 Item 31 : Need to perform static muscle exercises of the immobilized limb every four hours

Table 4.10 shows that 56% (14) respondents disagree, 24% (6) agree and only 20% (5) were uncertain to doing static muscle exercises. Most of the respondents with fractured femurs are against exercising the affected limb, yet movement of the joints and contraction of muscles stimulates the

circulation and helps to prevent venous stasis. This is a sign of negative attitudes. It also helps to promote healing and improves the nutritional state of the part.

4.7.1.14 Item 32 : Need to alternate contraction and relaxation of the quadriceps muscles for 5 minutes hourly

Table 4.10 indicates that 56% (14) respondents disagree, 24% (6) were uncertain, 8% (2) strongly disagree, 8% (2) agree and only 4% (1) strongly agree to doing quadriceps drills, thus most of the respondents were against exercising the affected limb. Movement of joint and contraction of muscles stimulated the circulation. If quadriceps drills are not done properly, quadriceps muscles might become weak resulting in inability of the patient to walk properly.

4.7.1.15 Item 33 : Strengthening of muscles of the upper arm in readiness for crutch walking immediately after injury is necessary

Table 4.10 reveals that 52% (13) respondents disagree, 24% (6) agree, 16% (4) were uncertain, 4% (1) strongly agree and 4% (1) strongly disagree to strengthening of the muscles of the upper arm. Sometimes the patient does not believe that exercises will help him. He finds constant repetition boring and thus prefer to undergo treatment which is done for him rather than try to improve by his own efforts. Shoulder and arm exercises are done to enable

the patient to cope with crutch walking. According to Nayagam, et al., (2001:684) exercises are begun as soon as possible.

4.7.1.16 Item 34 : Exercises must be gradually increased by distance walking

The results shows that 60% (15) disagree, 20% (5) agree, 8% (2) strongly agree, 8% (2) uncertain and 4% (1) strongly disagree to increasing the amount of exercises. Respondents showed negative attitudes towards increasing exercises. Setting attainable goals for each session helps to combat frustration and stimulate some interest in what goes on beyond the patient's bed. Practice is the cement for learning which makes complex, cumbersome and boring tasks more automatic and effortless. Powell (1986:451) comments that the patient initially is allowed only a limited activity, but that it should be increased as healing takes place.

4.7.1.17 Item 35 : Physiotherapist were gentle and supportive when teaching crutch walking

Table 4.10 indicates that 40% (10) respondents disagree, 36% (9) agree, 12% (3) strongly agree, 8% (2) were uncertain and only 4% (1) strongly disagree. Most respondents displayed positive attitudes towards teaching crutch walking since most of them agreed that physiotherapists were gentle. Crutch walking maybe a slow process which require considerable physical effort. It can quickly lead to feelings of discouragement and hopelessness. Thus being supportive and encourageous to the patient is necessary in order to express feelings and concerns.

4.7.1.18 Item 36 : Should be able to move in and out of bed independently when ambulated

Table reveals that 44% (11) disagree, 32% (8) agree, 16% (4) strongly agree and only 8% (2) were uncertain to being able to move in and out of bed independently, although the patients were taught independence during mobilisation. Most expected to be helped when getting in and out of bed. This shows that they were positive about being ambulated and being able to move in and out of bed independently, which will lead to successful rehabilitation.

4.7.1.19 Item 37 : Need to continue with exercise program in the absence of the rehabilitation team

Table above shows that 44% (11) respondents disagree, 32% (8) agree, 12% (3) strongly agree, 8% (2) were uncertain and 4% (1) strongly disagree to continuing with exercises in the absence of a rehabilitation team. Respondents were negative towards continuing with exercises. Free active and passive exercises must be continued in order to be effective. The best physiotherapy can be nullified by a lack of follow-up or maintenance of continuous exercises. Movement of calcium out of the bones into the blood stream is reduced by the patient's movement and exercises.

4.7.1.20 Item 38 : It is important to follow the rehabilitation regime as taught

Table 4.10 indicates that 40% (10) disagree, 24% (6) agree, 16% (4) respondents strongly disagree, 12% (3) strongly agree and only 8% (2) were uncertain about following the rehabilitation regime as taught. This might lead to ineffective rehabilitation since most feel that it is not important to follow the rehabilitation regime. For rehabilitation to be effective it must be continuous. Nayagam et al., (2001:701) state that patients with fractured femurs should

be taught how to perform everyday tasks like walking and getting in and out of bed.

4.7.1.21 Item 39 : Complications may arise due to inactivity or non-compliance

Table 4.10 reveals that 52% (13) respondents disagree, 28% (7) agree, 12% (3) strongly agree and only 8% (2) were uncertain. Patients with fractured femurs seem not to agree that complications may arise due to inactivity. This may lead to severe complications or immobility like stiffness of joints, muscle wasting, foot drop, contractures and venous stasis / thrombosis.

Footner (1992:46) commented that a full explanation is necessary about the possible consequences of not following the exercise regime set by the physiotherapist.

4.7.1.22 Item 40 : Was given good advice about the do's and don'ts at home like non weight bearing of the affected limb, climbing up and down the steps

Table 4.10 indicates that 68% (17) respondents agree 16% (4) strongly agree; 12% (3) disagree and only 4% (1) were uncertain about being given advice about the do's and don'ts at home. Most respondents were informed or given advice on the care of limbs. It can thus be anticipate that complications will be prevented for example, refracture of the fixation due to early weight bearing. This is a sign of a positive attitude towards rehabilitation.

4.7.1.23 Item 41 : Rehabilitation was not too demanding, there was a balance between exercise and rest

Table 4.10 shows that 48% (12) disagree, 20% (5) agree, 20% (5) were uncertain, 8% (2) strongly agree and only 4% (1) strongly disagree that the rehabilitation was not too demanding.

Most respondents disagree that there was a balance between exercise and rest. Respondents need to be made aware that the programme must include a period of rest in order to avoid general fatigue and undue strain on injured limb. A lack of exercise can be detrimental as continued rest could expose them to complications. All in all patients with fractured femurs seem to have a negative attitude toward the rehabilitation process.

4.7.2 Attitude towards psychosocial rehabilitation

Table 4.1 2 : Attitude towards psychosocial rehabilitation

TEM NO	1	%	2	%	3	%	4	%	5	%
42. I see myself as different and worthless.	11	44%	2	8%	1	4%	8	32%	3	12%
43. Have lost interest in everything beyond self.	12	48%	1	4%			9	36%	3	12%
44. I am able to assess my limitation and capabilities.	5	20%	1	4%	5	20%	12	48%	2	8%
45. I feel that I have to deal or satisfy too many people.	14	56%	1	4%	3	12%	6	24%	1	4%

46.	I accept the assumption that changes in lifestyle are usually an ongoing process.	8	32%	2	8%	2	8%	13	52%	
47.	Feel I need to assume more responsibility for own care.	6	24%	4	16%	2	8%	11	44%	2	8%
48.	I am coping well with my injury.	8	32%	2	8%	3	12%	12	48%		
49.	Getting enough sedation to relief pain.	9	36%	3	12%			11	44%	2	8%
50.	Rehabilitation team were friendly and helpful.	9	36%	5	20%			11	44%		
51.	Rehabilitation team pay attention to my activities and give advice (supportive).	9	36%	4	16%	3	12%	9	36%		
52.	Able to influence the rehabilitation team's decisions when they affect you.	9	36%					15	60%	1	4%
53.	Television was provided to prevent boredom.	18	72%	5	20%			2	8%		
54.	Family members will do everything for me at home.	14	56%	3	12%			6	24%	2	8%
55.	I feel I will be able to use crutches freely at home.	7	28%	4	16%			12	48%	1	4%

56.	I will be able to use public transport without any problems.	9	36%	2	8%	1	4%	13	52%		
57.	I feel I am well rehabilitated.	6	24%	1	4%	5	20%	13	52%		
58.	I feel I will be able to continue with my hobbies.	4	12%	3	12%	5	20%	13	52%		

4.7.2.1 Item 42 : I see myself as different and worthless

Table 4.11 illustrates that 44% (11) respondents agree, 32% (8) disagree, 12% (3) strongly disagree, 8% (2) strongly agree and 4% (1) were uncertain about seeing themselves as different and worthless. These results revealed that the respondents had negative attitudes towards rehabilitation, because most of them agreed that they felt different. This may be due to loss of independence and inability to accept a change in their roles, or fear of loss of place in the family, with peers and in the society. Also it may be due to embarrassment when using a bedpan or urinal in bed. Sakuma (1997:3) states that successful rehabilitation depends on qualities like positive self image, sound interpersonal relations, personal confidence, security in their concept of body image and self worth.

4.7.2.2 Item 43 : Have lost interest in everything beyond self

Table 4.11, 48% (12) respondents agree; 36% (9) disagree, 12% (3) strongly disagree and only 4% (1) strongly agree to loss of interest in everything beyond self.

Loosing interest maybe due to the "why me" syndrome. A patient may become apprehensive and sometimes depressed about his future. This may be revealed by aggression towards self, staff, family or friends. This might be detrimental to the rehabilitation process and must be solved as soon as possible for successful rehabilitation.

4.7.2.3 Item 44 : I am able to assess my limitation and capabilities

Table 4.11 reveals that 48% (2) disagree, 20% (5) were uncertain; 20% (5) agree; 8% (2) strongly disagree and only 4% (1) strongly agree that they were able to assess their limitations and capabilities.

This indicates some negative attitudes towards psychological rehabilitation. *Culture influences one's understanding of personal worth, view of health as* well as acceptance of medical care. This is the time when one needs to come to terms with his altered body image and disability. The will to recover and succeed should be within one's understanding of his/her disability and acceptance of one's limitation. This is very important.

4.7.2.4 Item 45 : I feel that I have to deal or satisfy too many people

Table 4.11 indicates that 56% (14) respondents agree 24% (6) disagree, 12% (3) were uncertain; 4% (1) strongly agree and 4% (1) strongly disagree about feeling that he has to satisfy too many people during rehabilitation. Most respondents felt that they had to deal with too many people. This feeling may be due to lack of knowledge about the rehabilitation team their roles and functions. It may also be due to cultural differences where patients think that the team is failing to treat him. Also the patients need to understand that it is the team's effort that will help him to recover and that he is the most important member of the rehabilitation team. Trombly (1995:19) comments that at *times patients with fractured femurs fear loss of protection and reliable care.*

4.7.2.5 Item 46 : **I accept the assumption that changes in *lifestyle are usually an ongoing process***

Table 4.11 reveals that 52% (13) respondents disagree, 32% (8) agree, 8% (2) *strongly agree and only 8% (2) were uncertain that changes in lifestyle* are an ongoing process. These results indicate that respondents were negative towards changes in their lifestyle which may be due to disability. This may hinder the rehabilitation process.

4.7.2.6 Item 47 : **I feel I need to assume more *responsibility* for own care**

Table 4.11 shows that 44% (11) respondents disagree, 24% (6) agree, 16% (4) *strongly agree, 8% (2) strongly disagree and 8% (2) were uncertain about* the need to assume more responsibility for own care. Most of the patients seemed to have a negative attitude towards assuming responsibility for own

care. They should be given a chance to practice those skills and attitudes that will help them to achieve maximum independence.

4.7.2.7 Item 48 : I am coping well with my injury

The results in Table 4.11 reveal that 48% (12) respondents disagree, 32% (8) agree, 12% (3) were uncertain and 8% (2) strongly agree in coping well with injury. It means that most respondents were not coping well with their injury which is a sign of having a negative attitude towards rehabilitation. This lack of coping may be due to the fact that stresses were not eliminated effectively. Thus coping involves avoiding or ignoring stress which can be caused by functional impairment, uncertainty about functions in future, pain and trauma experiences.

4.7.2.8 Item 49 : I am getting enough sedation to relieve pain

Table 4.11 indicates that 44% (11) respondents disagree, 36% (9) agree, 12% (3) strongly disagree and 8% (2) strongly agree to getting enough sedation for pain relief. Most patients experienced pain which is may be a sign of negativeness towards rehabilitation. Most of these patients do get enough sedation but most of the time they suffer from psychological distress which is very difficult to deal with.

4.7.2.9 Item 50 : Rehabilitation team were friendly and helpful

The results in Table 4.11 reveal that most respondents agree, 36% (9) that the rehabilitation team were friendly and helpful, 20% (5) strongly agree and only 44% (11) disagree. This is an indication that patients appreciated what

was done for them by the team which is a sign of a positive attitude. Stewart (1996:8) states that the demanding nature of treatment of the physically disabled requires a long term commitment and dedication to service.

4.7.2.10 Item 51 : Rehabilitation team pay attention to my activities and give advice (supportive)

Table 4.11 shows that most of the respondents agreed 36% (9), that the rehabilitation team pay attention to their activities and gave advice and support, 36% (9) disagree, 16% (4) strongly agree and 12% (3) were uncertain. It is clear from the above results that the respondents had a positive attitude towards the team and saw them as resourceful and supportive. This may result in successful rehabilitation. Trombly (1995:22) states that the disabled persons need to be treated likely by the team by demonstrating respect, empathy and a humanistic philosophy.

4.7.2.11 Item 52 : Was able to influence the rehabilitation team's decision when they affect you

Table 4.11 indicates that most respondents, 60% (15), disagree, 36% (9) agree and 4% (1) strongly disagree that they were able to influence the team's decision when it affected them.

This might influence the rehabilitation process negatively because patients are part and parcel of the rehabilitation team. So they should be involved in decisions involving their care.

4.7.2.12 Item 53 : Television was provided to prevent boredom

Table 4.11 shows that 72% (18) respondents agree, 20% (5) strongly agree and only 8% (2) disagree. This means that patients had access to a means of entertainment to prevent boredom. Television kept them up to date with what was happening outside. This may encourage to successful rehabilitation.

4.7.2.13 Item 54 : Family members will do everything for me at home

Table 4.11 shows that 56% (14) respondents agree, 24% (6) disagree, 12% (3) strongly agree and 8% (2) strongly disagree. This is not a good sign as each and every patient should try to be independent by the time of discharge . Family members are only there to help and guide the injured person. This is a sign of a negative attitude towards rehabilitation. According to Stewart (1996:9) patients should be helped to deal with conflicts concerning their own unresolved dependency needs, like longing for care and affection.

4.7.1.14 Item 55 : I feel I will be able to use crutches freely at home

Table 4.11 indicates that 48% (12) respondents disagree, 28% (7) agree, 16% (4) strongly agree and 4% (1) strongly disagree to using crutches freely at home.

Some patients lack motivation to work hard for successful rehabilitation. They display a negative attitude towards rehabilitation. They have a tendency to be reluctant to participate actively in their rehabilitation for independence.

According to Tromply (1995:19) patients who lack motivation to take part in their rehabilitation become depended on the security of the hospital environment and support of the staff.

4.7.2.15 Item 56 : I will be able to use public transport without any problems

Table 4.11 reveals that 52% (13) disagree, 36% (9) agree, 8% (2) strongly agree and only 4% (1) were uncertain to using public transport. These results indicate that most respondents were reluctant to use public transport. This may lead to failure of a rehabilitation process because there is no available private transport for the disabled people. They will even be unable to attend follow-up treatment in the institutions and end up by experiencing problems and complications.

4.7.2.16 Item 57 : I feel I am well rehabilitated

Table 4.11 indicates that 52% (13) disagree, 24% (6) agree, 20% (5) were uncertain and 4% (1) strongly agree to being well rehabilitated. It is clear from the above results that respondents were negative towards rehabilitation. They seemed to deny the help they received from the rehabilitation team. Rehabilitation is always aimed at helping the patient to get better and go back home to his community. This evidence of denial may delay the rehabilitation process. Some patients view illness and disability as providing sanction to stop working and to be cared for.

4.7.2.17 Item 58 : I feel I will be able to continue with my hobbies

Table 4.11 shows that 52% (13) disagree, 20% (5) were uncertain, 16% (4) agree and 12% (3) strongly agree to continuing with hobbies. The above

result indicate that most patients with a fracture femur view themselves as *permanently disabled. They resist any feelings of independence. They might* need extensive long term rehabilitation and strong motivation in order to be able to cope with their disabilities and become contributing members of the community.

It is obvious from the above findings that patients with a fractured femurs need psychological help because of their negative attitudes.

4.7.3 Attitude towards vocational rehabilitation

It became necessary to include vocational rehabilitation since rehabilitation is aimed at helping the patient to get better and return to work, especially disabled people since they experience problems with employment.

In this section only 44% (11) respondents were working before injury, 20% (5) were pensioners, 12% (3) were casual workers during the time of injury, 12% (3) were unemployed and only 12% (3) were scholars during the time of injury. Only the data for those that were working was analysed to find out about the vocational problems they encounter after rehabilitation and after discharge from the hospital. These were 44% (11) of the respondents that were working.

Table 4.13 : Attitude towards vocational rehabilitation

	Item	1	%	2	%	3	%	4	%	5	%
59.	I feel I will be able to return to my previous job.	2	8%	1	4%			7	28%	1	4%
60.	Vocational counseling was done while I was still hospitalized.							9	36%	2	8%
61.	Vocational counselor contacted my employer regarding my employment.									11	44%
62.	Sick-leave was organized while I was still recovering.	1	4%	1	4%			8	32%	1	4%
63.	Unemployment claim form filled in while still in hospital.	1	4%					9	36%	1	4%
64.	Received relief fund while still in the hospital.	2	8%	1	4%			7	28%	1	4%
65.	I will not need a disability grant because I will be going back to my previous job.	2	8%					8	32%	1	4%

4.7.3.1 Item 59 : I feel I will be able to return to my previous job

Table 4.12 reveals that 28% (7) disagree, 8% (2) agree, 4% (1) strongly agree and 4% (1) strongly disagree to returning to their previous job. This is an indication that respondents had a negative attitude towards returning to their previous job. This may be due to the fact that they view themselves as permanently disabled after the injury. Some of them hope to stop work and receive help from the government through a disability grant. This should be discouraged because after successful rehabilitation they can return to their

old jobs. Stanhope and Lancaster's (1992:325) cited in Siyothula and Kubheka (2002:17) state that vocational rehabilitation programmes are not only beneficial to the individuals who are disabled, but also had proved to be economically beneficial to society as a whole by reducing the number of disabled people to be for cared by institutions and government.

4.7.3.2 Item 60 : Vocational counseling was done while I was still hospitalized

Table 4.12 indicates that 36% (4) disagree and 8% (2) strongly disagree to receiving vocational counseling. Vocational counselors are not available at present among the rehabilitation teams. Patients only get minimal help in this respect from doctors, occupational therapists and social workers. The high percentage of people being unemployed after injury may be due partly to lack of these vocational counselors. This category of personnel is needed in order to improve unemployment amongst disabled people. Mbeki (1997:96) in his white paper guidelines, views vocational rehabilitation as an essential component in a national human resource development strategy and must include vocational guidance, vocational training and selective placement.

4.7.3.3 Item 61 : Vocational counselor contacted my employer regarding my employment

Table 4.12 shows that, all 44% (11) respondents who were working, strongly disagree that their employers were contacted. This may affect the patient's employment status as the employer may not know that the worker was in hospital after the injury. After hospitalization he will not be accepted back to work and as a result will loose that job. The vocational counselor will be able to communicate with the employer and give advice on the type of employment suitable for the individual, negotiate with the employer for return to work part time or arrange for light duty work, as well as a monitoring progress. This

often allows the employer to keep the employment until a full return to work is accomplished. This lack of vocational counselor may also contribute to the negative feeling of the respondents towards their disabilities.

4.7.3.4 Item 62 : Sick-leave was organized while I was still recovering

Table 4.12 reveals that 32% (8) disagree, 4% (1) strongly disagree, 4% (1) agree and 4% (1) strongly agree that sick-leave was organized. Most respondents indicate that this was not done and was only written when the patient was discharged. This might create problems since the patient might end up loosing his job or even not being paid, thus the family might suffer if he is the breadwinner. This may cause a variety of attitudinal problems as well as strange behaviour towards staff and the injury itself.

4.7.3.5 Item 63 : Unemployment claim form were filled while still in hospital

Table 4.12 indicates that 36% (9) respondents disagree, 4% (1) agree and 4% (1) strongly disagree to filling-in of the unemployment forms. This may also cause delays in getting a claim being settled after discharge. Sometimes the patient may display a negative attitude not because of the injury but because of social and economic problems.

4.7.3.6 Item 64 : Received relief fund while still in the hospital

Table 4.12 reveals that 28% (7) respondents disagree, 8% (2) agree, 4% (1) strongly agree and 4% (1) strongly disagree to receiving relief fund while in the hospital. Vocational counselors play a big role in assisting orthopedic patients after injury because most of them are confined to bed for a long time and are unable to communicate with their employers and other rehabilitation services.

4.7.3.7 Item 65 : I will not need a disability grant because I will be going to my previous job

Table 4.12 shows that 32% (8) respondents disagree, 8% (6) agree and only 4% (1) strongly disagree that they will not need disability grant. Most respondents indicated that they will need a disability grant since they need a form of support. Some patients after fractured femurs may not need a permanently disability grant. Those who display a positive attitude are rehabilitated successfully and can return to their previous work. However, those with a negative attitudes end up with a permanent disability and thus require a disability grant for life.

These results indicate that respondents had negative attitudes towards changes in their lifestyle which may be due to the disability. This may also hinder the rehabilitation process.

4.8 CONCLUSION

In this chapter analysis and interpretation of the attitude of patients with fractured femurs towards rehabilitation, was presented. Generally patients with fractured femurs displayed negative attitudes towards rehabilitation by answering negatively to most of the questions on physical, psychosocial and vocational rehabilitation. In the next chapter a summary of findings, conclusions, limitations and recommendations will be presented

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS, LIMITATIONS AND *RECOMMENDATIONS*

5.1

5.2 INTRODUCTION

This chapter presents a brief overview of findings, conclusions, limitations and recommendations which might serve as guideline for furthers scientific enquiry into the subject investigated.

5.3 SUMMARY OF THE STUDY

The title of the study was an investigation of the attitude of orthopaedic *patients with fractured femurs towards rehabilitation in hospital after injury.* The study undertook to investigate the attitude of patients with fractured femurs towards rehabilitation in hospital after injury in terms of the following:

- Attitude towards physical rehabilitation.
- Attitude towards psychosocial rehabilitation.
- Attitude towards vocational rehabilitation.

The research questions were as follows:

1 *What is the attitude of orthopaedic patients with fractured femur* towards rehabilitation?

2 What measures can be taken to improve or encourage positive attitude of patients towards rehabilitation ?

5.3 RESTATEMENT OF ASSUMPTIONS AND OBJECTIVES

Emanating from the above questions the following assumption was made: "It *is assumed that full-cooperation of both the patient and family as active* members of the rehabilitation team, as well as early rehabilitation, can decrease the number of complications following injury." Based on the above assumption the following objectives were formulated.

Objective 1

To identify the causes or factors contributing to the reluctance of patients with fractured femurs towards rehabilitation.

Objective 2

To evaluate the quality of rehabilitative care provided.

Objective 3

To find measures to improve the attitude of patients with fractured femur towards rehabilitation.

Research reports

The research report consisted of 5 Chapters.

Chapter 1 : The researcher explained the motivation for undertaking the study, stated the research questions, the objectives of the study as well as definitions of certain terms used in the text.

Chapter 2 : This chapter presented an overview of literature consulted and the theoretical framework the study is based upon.

Chapter 3 : The research methodology used for the study was presented in this chapter.

Chapter 4 : Chapter 4 focused on the analysis and interpretation of data for patients who were admitted with fractured femurs.

Chapter 5 : The final chapter presented a summary, conclusions, limitations and recommendations for the study.

5.4 CONCLUSION

Conclusions were reached according to the objectives formulated.

5.4.1 Objective 1

Identifying the causes or factors that contribute to the reluctance of patients with fractured femurs towards rehabilitation.

5.4.1.1 Age group

In this study most of the respondents 36% (9) were still young, between ages 16-25 years. During this time they are still at their adolescent stage with its problems. They are usually unco-operative and eager to move around doing, their own things. Having a fracture means being admitted in the hospital and put in traction. It becomes very difficult to nurse them since they develop negative attitudes and quarrel with the rehabilitation team.

The respondents that were above 45 years, 28% (7), had other types of problems that caused them to develop negative attitudes. They are usually breadwinners, looking after a big family. The injury will keep them confined to

bed for a period of time with no income, thus they see the physical injury as a threat to their status both professionally and economically.

5.4.1.2 Gender

The study shows that 76% (19) respondents were males. This might affect the rehabilitation programme due to cultural attitudes and values, for example in many cultures men are the heads of the family and makes all decisions, while women have no say. Thus the women are always subordinates. Most of the rehabilitation team is made up of females. When a male is injured he has to take instructions from these female rehabilitation team members which is difficult for someone who is used to giving instruction.

Some cultural values do not allow for expression of feelings, for example pain, as it is not manly to cry or express feelings of anger, which do not only impede treatment but may also cause the development of psychological problems. The patient may attempt to sabotage treatment, or make verbal attacks on staff. Another factor may be that men are used to violence in the community, thus they will continue to be abusive and violent even when they are hospitalised.

5.4.1.3 Marital status

An injured person needs support, guidance and encouragement from a partner. In the study most respondents were single 56% (14). A lack of support may result in negative attitudes towards rehabilitation, thus they will fail to cope with all the demands put on them by the injury. Even after the injury has healed they will be left with a deformity which may make it difficult to find a partner or to be actively involved in the carefree life that most single people live. On top of loss of function, a patient needed to integrate orthotic

equipment into his self-image which is a difficult task, and may result in rejection of the equipment.

5.4.1.4 Low Educational Standards

The standard of education can also contribute to a negative attitude towards rehabilitation. Most of the respondents, 44% (11) were between illiterate and Standard 4. These patients may fail to understand and follow instructions of the rehabilitation team. They will probably end up developing negative attitudes towards rehabilitation and have complications like stiffness of joints, deformities and non-union of the bones due to early weight bearing.

5.4.1.5 Lack of information about complications that may occur after injury

Knowing about the purpose of a treatment relieves the patient from fear of the unknown. Most of the respondent were not informed about complications, i.e. 60% (15), and this influence the rehabilitation process negatively as the patient will be very uncooperative since not everything was explained to them.

5.4.1.6 Lack of information about the rehabilitation process on first day of admission

Most respondents were not informed about the rehabilitation process – 72%(18). Thus they were not aware of what is going to happen, or what is being expected from them as active members of the rehabilitation team. The patients may fail to follow the rehabilitation process thus ending up having a negative attitude towards rehabilitation.

5.4.1.7 Physical environment not conducive to health and recovery

According to 52% (13) respondents, the environment was not conducive to health, recovery and independence. This could affect the rehabilitation process negatively. The hospital environment has a great impact upon the admitted patient. It can be experienced as alien, monotonous and confining with unfamiliar rules and norms of behaviour which the patient is expected to abide with. The patients thus cannot influence his environment. Also some patients can become dependent on the security of the hospital environment and support of staff in such a way that the time of discharge may be very threatening.

5.4.1.8 Commencement of rehabilitation on admission

Rehabilitation should commence on admission so that the patient can get used to it. If it is commenced later the patient will be reluctant to do it because he has become used to relaxing. This will result in many complications like stiffness of joints, muscle wasting and contractures.

In this study only 36% (9) respondents agreed and strongly agreed to commencement of rehabilitation on admission.

5.1.4.9 Negative attitudes towards commencement of rehabilitation

In this study respondents mostly displayed a negative attitude towards commencement of rehabilitation. 64% (16) Respondents felt that rehabilitation should commence after discharge, while 60% (15) felt that rehabilitation must commence when the fracture has healed, because of pain. This create problems as rehabilitation needs to be done soon after admission. This may lead to problems for instance a person with an acute

injury for whom the expectations would be full recovery, is still significantly disabled a year after his injury.

5.1.4.10 Negative attitude towards self care

Most respondents 60% (15) agreed that nurses should do everything for them in the hospital. This results in them being reluctant to provide or do their own self-care so that they quarrel with the nurses when asked to do self-care like having a bath even when they are able to do so.

5.1.4.11 Negative attitudes towards performing exercise

Most of the respondents in this study had a negative attitudes towards exercises.

72% (18) respondent disagree and strongly disagree to doing active exercises of all the joints that are not affected at least twice a day.

76% (19) Respondents disagree and were uncertain about performing static muscle exercises of the immobilized limb every four hours.

64% (16) Respondents disagree to alternating contraction and relaxation of quadriceps muscles every 5 minutes hourly, while 56% (14) disagree to doing exercises of the upper arm to strengthen muscles in readiness for crutch walking.

64% (16) Respondents disagree to gradual increase of exercises like distance walking.

This negative attitude results in reluctance which leads to many complications. Exercises of the affected limb stimulate the circulation and

improve the nutritional state of the affected limb. Footner (1992:17) states that exercising the affected and non-affected limbs helps to conserve the function of joints and muscles during the period of immobilisation.

5.1.4.12 Negative attitudes towards continuation of an exercise program in the absence of the rehabilitation team due to lack of motivation.

Most respondents 48% (11) disagree to continuants with exercise programme in the absence of the rehabilitation team due to lack of motivation. The patient sometimes does not believe that exercise will help him. Thus he prefers to undergo treatment which is done for him rather than try to improve by his own effort.

Trombly (1995:19) discovered that motivation is one of the factors that can influence or hinder attitudes towards rehabilitation.

5.4.1.13 Failure to follow the rehabilitation programme as taught in order to prevent complications

Most respondents, 56% (14), disagree that it was important to follow the rehabilitation regime as taught, while 52% (12) disagreed that complications may arise due to inactivity or non-compliance. This will lead to complications like muscle wasting as well as delayed bone healing. Activity should be increased as healing takes place.

5.4.1.14 Self concept

Successful rehabilitation depends on positive self-image, confidence, sense of self worth as well being physically or personally attractive. Thus 52% (13) respondents agree that they felt different and less worthy after the injury,

which may be one of loss of function. Sarkin (1997:289) states that loss of function and deformity are some of the results of a fracture. These patients also state that they have lost interest in everything beyond the self. This is revealed by being aggressive towards staff and family as well as feeling pity for themselves. This is detrimental to the rehabilitation process.

5.4.1.15 Lack of ability to assess limitations and capabilities

Failure to assess one's capabilities may be due to failure to come to terms with one's altered body image and disability. 56% (14) Respondents were unable to assess their limitations and capabilities. This influences the rehabilitation programme negatively as the will to recover and succeed is within one's understanding of the disability and acceptance of one's limitations. Martell (1997:1) views accepting challenges and striving to beat it as one of the commandments to motivate a disabled person to have a positive attitude.

5.4.1.16 Lack of pain relief

If the patient suffers from severe pain and it is not relieved, he will fail to cope with the rehabilitation process; ending up being anxious and unco-operative. Most respondents 52%(13) disagree that they were getting enough pain relief and that made them to be very negative against rehabilitation.

5.4.1.17 Inability to cope well with the injury

Most of the patients disagreed that they were coping well with their injuries – 60%(15). Loss of function due to injury followed by surgery causes some emotional reactions. Thus functional impairment, uncertainty about the future and pain and trauma experienced, lead to stress which result in ineffective

coping mechanisms. This eventually cause negative attitudes towards rehabilitation.

5.4.1.18 Inability to deal with and satisfy many people

The patients felt that they have to satisfy and deal with too many people during rehabilitation since the team consists of many members. They mentioned that this makes them very reluctant to continue with their treatment. Thus 60% (15) respondents felt very negative towards rehabilitation.

5.4.1.19 Inability to influence the rehabilitation team's decisions

Most patients, 64% (16), disagree that they were able to influence the team's decisions because they thought that they were not part of the team. Thus they put all the responsibility on the rehabilitation team.

5.4.1.20 Inability to use crutches and public transport freely at home

Patients' motivation to work towards treatment objectives depends on the values they place on the attainment of goals. 52% (13) Respondents disagree that they will be able to move freely at home. The reason might be that most of them were from rural areas where they are disadvantaged in many respects, like no roads, or too far from transport or health centres. This can create negative attitudes towards rehabilitation.

5.4.1.21 Feelings of not being well rehabilitated

Most respondents felt that they were not well rehabilitated since most felt that rehabilitation should be done after discharge. Thus they were not as realistic about the outcomes of rehabilitation as they should be.

5.4.1.22 Feelings of inability to return to their previous job

Most respondents, 32% (8) felt that they cannot return to their previous jobs. This may be due to fact that to many patients being injured means to be permanently disabled. They see this as a means to stop working and be cared for by family. Trombly (1995:19-22) states that these patients usually display negative attitudes towards rehabilitation and a reluctance to get better.

5.4.1.23 Lack of vocational counselling

This service is not available at present among the rehabilitation team. A lack of this service may also contribute to the negative feelings of respondents towards rehabilitation. Patients fail to concentrate on programmes or may be stressed due to being worried that he/she may loose their job, since the employers are not always aware about his/her injury as well as hospitalization. In this section on vocational rehabilitation, 44% (11) respondents were working during time of injury and were included. All of them disagree that this was done.

5.4.1.24 No relief fund provided while still in hospital

The patient may display a negative attitude not because of his injury, but because of his social and economic problems. Some may need money to buy food for their families while being hospitalized. If no help is available, the patient may quarrel or be troublesome with the rehabilitation team.

5.4.1.25 Provision for a disability grant

The study showed that 36% (9) respondents felt that they need a disability grant because they were injured. They were also reluctant to go back to their previous jobs. This is a sign of a negative attitude because if they pay more attention to their treatment they can get better and go back to their previous work.

5.4.2 OBJECTIVE 2

TO EVALUATE THE QUALITY OF REHABILITATIVE CARE PROVIDED

Even though most of the respondents displayed a negative attitude towards the rehabilitation process, some rehabilitation team members managed to provide quality rehabilitation care to them.

5.4.2.1 Maintenance of traction

Traction is used to secure immobilization of an injured part and to relieve pain. In the study 80% (20) respondents agreed that traction was self maintained. Staff ensured that weights hang free and are not resting on the floor; That pulleys are silent; that there are no knots around the pulley and that staff avoid knocking over weights as this may cause pain. The Foot-end of the bed should be elevated, in accordance with Newton's third law of motion, that for every action there must be an equal and opposite reaction. Footner (1992:54) agrees with the above by identifying the principles of traction that need to be observed which are counter traction, continuity and no friction.

5.4.2.2 Application of bandages

Bandages were not too tight according to 92% (23) respondents. Thus neurovascular problems were avoided, i.e. no pressure on tendo Achilles which may become irritated if covered; or no pressure on peroneal nerve. Bandages were applied firmly but not so tight as to interfere with blood or nerve supply to the limb.

5.4.2.3 Affected leg well supported to prevent external rotation and angulation

A fracture in the femur is accompanied by marked displacement of the fragments due to contraction of the strong muscles of the femur and hip. The adductor muscles produce lateral bowing.

92% (23) respondents indicated that their limbs were well supported and this prevented displacement and over-riding of the fragments. Sarkin (1997:296) comments that good support of the affected leg prevents complications like malunion where the fracture heals in a wrong position.

5.4.2.4 Nurses were gentle when handling the affected limb

In the study 80% (20) respondents indicated that nurses were gentle when handling the affected limb. If the fracture site is not handled with care it disturbs the immobilization of the fracture which is essential to healing.

5.4.2.5 Physiotherapist were gentle and supportive when teaching crutch walking

Crutch walking may be a slow process which requires a considerable physical effort. Thus it can lead to feelings of discouragement and hopelessness.

Most respondents 48% (12) indicated that the physiotherapists were gentle and supportive. Being sincere in giving instructions encourages the patient to express feelings and provides reassurance. That is the reason why the physiotherapist should stand close behind the patient when learning to stand, or walking with crutches, and grasp the patient if he feels dizzy.

5.4.2.6 Given good advice about DO's and DON'T at home

Specific orders must be given to the patient in a clear and understandable manner about when to bear weight. Early weight bearing leads to failure of the implant or refracture because the implant reaches its fatigue limit too soon. The hand-rests of crutches must be placed in such a manner as to allow the weight to be taken on the hands and not the axillae in order to prevent crutch palsy. Thus 68%(17) respondents agree that they were given advice about the DO'S and DON'TS during the healing process.

5.4.2.8 Rehabilitation team were friendly and helpful

The demanding nature of treatment for these patients requires a long-term commitment, dedication to service and a high tolerance of stress and frustration by the team. 56% (14) Respondent agree that the rehabilitation team was friendly and helpful. The team paid attention to their activities, and gave support and advice. This means that patients were given a chance to verbalize feelings and to clarify misconceptions.

5.4.2.9 Television was provided to prevent boredom

It is the nurses' duty to encourage the patient to take advantage of recreational activities. In hospital these may be limited but the radio and television are valuable stimuli. 92% (23) respondents agree that they had access to means of entertainment. Television kept them up to date with what was happening outside in the community. Visitors also provided valuable stimulus and contact with the outside world.

5.4.2.10 The Physiotherapist were gentle when exercising the affected limb

52% (13) Respondents felt that the physiotherapist were not gentle when exercises of the affected limb were done. Being gentle on the limb helps to preserve the healing process, i.e. a haematoma, which is later replaced by granulation tissue and lastly by Callus formation. Smeltzer and Bare (2001:684) state that exercises of the affected limb should be commenced as soon as possible, but everybody should do this as gently as possible.

5.4.2.11 Not getting enough sedation to relieve pain

Sedation is prescribed for patient soon after admission to relieve pain. In the study 52%(13) respondents disagree that they had had enough sedation. Most patients with fractured femur, although they get enough sedation, still complain of pain because they suffer from psychological distress, which is very difficult to deal with.

Even most of the patients with fractured femurs displayed negative attitudes towards their rehabilitation, there are those who appreciated the care received and viewed it positively. Quality patient care should be provided by every nurse for successful rehabilitation.

5.4.3 OBJECTIVE 3 RECOMMENDATIONS

The following recommendations were made in order to improve attitudes of patients with fractured femurs towards rehabilitation:

1) The curriculum for basic and post basic students should include rehabilitation nursing so that they will be able to provide total comprehensive rehabilitative care to patients.

2) Clinical nurse specialists in rehabilitation nursing at Masters level should be educated and trained in order that they may display good skills in rehabilitation for all the nurses working in the orthopaedic wards. At present there are few who are specially prepared to provide rehabilitation nursing to these patients.

3) It is recommended that each and every rehabilitation team member should strive to provide a conducive environment for health and recovery, to welcome every patient admitted in the hospital, to be friendly to them and to be as gentle as possible when handling their affected limbs so that they make experience rehabilitation with a positive attitude.

4) Self-care and independence should be encouraged by the rehabilitation team to every patient on admission. This should be encouraged for continuity of care at home after discharge, as patients were negative in providing their self-care and suggested that it should be done by family members or a nurse.

5) Team approach: There were team members that were lacking in the rehabilitation team, like the psychologist. This team member is important to help patients by providing psychological rehabilitation,

since their psychological problems affected the rehabilitation process negatively. It is recommended that each institution catering for orthopaedic patients should provide a psychologist for successful rehabilitation.

6) Another team member that is not always available for orthopaedic patients is a vocational counselor. This team member has a role to play by contacting the employers regarding the injury of the patient and his admission to hospital so that they keep employment for him after discharge. Most of these patients become disabled and they loose their jobs. Each institution should be a vocational counselor for to improve employment for disabled people. The vocational counselor can organize full-time or light work while the patient is recuperating, in order to support the family.

7) Nursing staff should be aware of crises and stress points in rehabilitation e.g. admission or ambulation time, so that the rehabilitation team can plan treatment and supportive intervention to meet the patient's needs during the crisis period.

8) Provision of enough information to the patient about injury, treatment, causes and complications as well as the rehabilitation process in order to prevent fear of the unknown, for instance a patient should be told that rehabilitation starts on the first day of admission. If they know what is expected of them, they will cooperate with the rehabilitation team. This should be done in their own language for better understanding as most have a low standard of education.

9) The patient and family should be made aware that they are active members of the rehabilitation team so that they can be cooperative.

Inclusion of the family from the time of admission will prepare them to be able to care for the patient on discharge.

10) There should be effective communication between patients, families and rehabilitation team. This is an essential ingredient of rehabilitation since a patient who feels that the rehabilitation team treating him is genuinely interested in his well-being, will be more motivated to adhere to his programme of rehabilitation.

5.5 LIMITATIONS OF THE STUDY

This study is limited because not much recent research has been done on rehabilitation nursing. Some of the sources quoted in the study are outdated. At present the researcher is trying to encourage more research to be done on the issue of rehabilitation nursing.

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LIST OF ANNEXURES

ANNEXURE 1

King Edward V111 Hospital
P/Bag Dalbridge
4014
19 November 2002

Mr. Tromp
Secretary: Department of Health
330 Longmarket Street
PIETERMARITZBURG
3200

Dear Sir

Re: Request for permission to conduct a research study

I hereby request a permission to undertake a research study as a requirement for M.A. Cur Degree; I am doing at the University of Zululand (Durban-Umlazi Campus) Nursing Science Department.

The topic of the study is: An investigation of the attitude of orthopaedic patients with fractured femur towards rehabilitation after injury in KwaZulu-Natal Hospitals.

The study is intended to improve the attitude of orthopaedic patients with fractured femur towards rehabilitation in hospital after injury. I enclose a proposal, which gives details of the proposed study and methodology.

I shall be grateful if my request meet your favourably consideration.

Yours Faithfully
T.D.Zuma

ANNEXURE 2

To OFFICE OF HEALTH PLANNING

PROVINCE OF
KWAZULU-NATAL
HEALTH SERVICES

ISIFUNDAZWE
SEKWAZULU-NATALI
EZEMPILO

PROVINSIE
KWAZULU-NATAL
DEPARTEMENT VAN GESONDHEID

NATALIA
330 LONGMARKET STREET
PIETERMARITZBURG

TEL. 033-3952111
FAX 033-3426744

Private Bag :X9051
Esikhwama Sepost : Pietermaritzburg
Privaatsak : 3200

Enquiries: Mr G.J. Tromp
Extension: 2761
Reference: 9/2/3/R

17 JAN 2003

Ms T.D. Zuma
King Edward VIII Hospital
P/Bag Dalbridge
4014

Dear Madam

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH PROJECT : INVESTIGATION OF THE ATTITUDE OF ORTHOPAEDIC PATIENTS WITH FRACTURED FEMURS TOWARDS REHABILITATION IN HOSPITAL AFTER INJURY

Your letter dated 19 November 2002, refers.

Please be advised that authority is granted for you to do an investigation of the attitude of orthopaedic patients with fractured femurs towards rehabilitation in hospital after injury provided

(a) Prior approval is obtained from the Head of the Institution;

(b) Confidentiality is maintained;

(c) The Department is acknowledged; and

(d) The Department receives a copy of the report on completion.

Yours sincerely

17/01/03

SUPERINTENDENT-GENERAL
DEPARTMENT OF HEALTH

ANNEXURE 3

65 Ribbon Road
Newlands East
4037
8 March 2003

The Superintendent
King Edward V111 Hospital
P/bag Dalbridge
4014

Dear Madam

Re: Request for permission to conduct a study

I hereby request permission to conduct a study on orthopaedic patients with fractured femur at your hospital. After injury data is needed for a research study, which is a requirement for completion of M.A. Cur Degree in the University of Zululand (Durban-Umlazi Campus).

The topic is: An investigation of the attitude of orthopaedic patients with fractured femur towards rehabilitation in hospital after injury.

Attached with the letter is permission, which have been granted to me by the Department of Health in Pietermaritzburg, Natalia, proposal that gives details of the proposed study and methodology and questionnaire for the patient.

I shall be grateful if my request meet your favourably consideration.

Yours faithfully
T.D.Zuma

ANNEXURE 4

ROVINCE OF
AZULU-NATAL

ISIFUNDAZWE
SAKWAZULU-NATAL

PROVINSIE
KWAZULU-NATAL

KING EDWARD VIII HOSPITAL

(Recipient of the Premier's & PWC Good Governance Awards 2001)

Postal Address: Private Bag , Dalbridge , 4014. • Telephone: 031 3603853 • Fax: 031 2061457 •

Enquiries: Mr. A.J Seekola
Reference: KE 2/7/1 **(16/2003)**
Research Programming
13 June 2003

TD Zuma
65 Ribbon Road
NEWLANDS EAST
4037

Request to conduct research at King Edward VIII Hospital.
Protocol: Investigation of the attitude of Orthopaedic patients with fractured femurs towards rehabilitation in hospital after injury.

Your application received on the 8 May 2003 is approved pending the submission of an Ethical Approval from the University of Zululand.

After the submission thereof, please make an appointment with our Nursing Management to discuss how and when your questionnaire could be handled.

Please ensure that King Edward VIII Hospital receives full acknowledgement in the study on all publications and reports and also kindly present a copy of the publication or report on completion.

Please sign an Indemnity Form at Room 8, Admin Block before commencement.

The Management of King Edward VIII Hospital reserves the right to terminate the permission for the study should circumstances so dictate.

Yours Sincerely

Dr ZN Kharva
Acting Hospital Manager.

ANNEXURE 5

RESEARCH QUESTIONNAIRE

RESEARCH QUESTIONNAIRE FOR AN INVESTIGATION OF THE ATTITUDE OF ORTHOPAEDIC PATIENTS WITH FRACTURED FEMUR TOWARDS REHABILITATION IN HOSPITAL AFTER INJURY

Dear Participant

I request your participation in this study which involve completion of the questionnaire that will be provided. You are assured of total anonymity and confidentiality. Do not write your name on the questionnaire.

Your participation is voluntary and should you choose not to participate there will be no consequences. May choose to withdraw from the study of anytime without penalty or loss of benefits.

All information will be kept securely by researcher. Once collected a report will be developed, which will not report on individual case but present the group data.

Please complete and answer all questions as honesty as by making a tick where applicable e.g. Male ☐ Female ☑

Thank you for your cooperation.

SECTION A : DEMOGRAPHIC DATA

1. AGE GROUP

16-25	☐
26-35	☐
36-45	☐
45 and above	☐

2. GENDER

Male ☐ Female ☐

3. MARITAL STATUS

Single	☐
Married	☐
Divorced	☐
Widowed	☐
Long term partner	☐

4. AREA OF RESIDENCE

Rural	☐
Urban	☐
Informal settlement	☐
Homeless	☐

SECTION B : EDUCATIONAL HISTORY

5. EDUCATIONAL STATUS

4-6	
7-9	
10	
12	

SECTION C : EMPLOYMENT HISTORY

6. EMPLOYMENT

Unemployed	
Casual worker	
Employed	

Other : _____

SECTION D : HISTORY OF INJURY

7. TIME OF INJURY

Time of injury	
Morning	
During the day	
Afternoon	
Evening	

8. MECHANISM OF INJURY

Gunshot	
Assault	
Fall	

CAR ACCIDENT

Driver ☐

Passenger ☐

Pedestrian ☐

Other: _____

9. SITE OF INJURY

Shaft of femur ☐ Neck of femur ☐

10. CHARACTERISTIC OF INJURY

Compound

Closed

Associated injuries

11. Were you able to walk after the injury? Yes ☐ No ☐

12. Was the purpose of treatment discussed with patient?

Yes ☐ No ☐

13. TYPE OF TREATMENT RECEIVED

Skin traction ☐

Thomas splint traction ☐

Back-slab ☐

Operation done ☐

Internal fixation ☐

Debridement / External fixation ☐

14. Sent to theatre for operation of your limb soon after admission?

Yes ☐ *No* ☐

15. Information given about complications that may occur after injury?

Yes ☐ No ☐

16. Information about rehabilitation process given on the first day of admission?

Yes ☐ No ☐

SECTION E : FAMILY BACKGROUND

17. RELATIONSHIP WITH FAMILY BEFORE INJURY

Bad	☐
Unstable	☐
Stable	☐

18. AVAILABILITY OF CAREGIVER AT HOME AFTER DISCHARGE

Spouse (wife/husband)	☐
Family	☐
Friend	☐
Caregiver	☐
Nobody	☐

19. Physical environment conducive to health, recovery and *independence, that is cleanliness, floors non-slip and bed firm and* adjustable.

1	2	3	4	5

SECTION F : ATTITUDE TOWARDS REHABILITATION

20 Physical environment was conducive to health recovery and independence.

1	2	3	4	5

21. Rehabilitation to be commenced on admission to the hospital.

1	2	3	4	5

22. Rehabilitation to be commenced after discharge?

1	2	3	4	5

23. Rehabilitation to be commenced only when fracture has healed because of pain?

1	2	3	4	5

24. Nursing staff should do everything for me e.g. self care.

1	2	3	4	5

25. Traction was well maintained this is, sand, bags, hang freely and no bumping on them by staff.

1	2	3	4	5

26. Bandages were not applied too tight.

1	2	3	4	5

27. Affected leg was well supported to prevent external rotation and angulation.

1	2	3	4	5

28. Nurse's are gentle when handling the affected limb.

1	2	3	4	5

29. Nurses encourages me to actively participate in my care.

1	2	3	4	5

30. Physiotherapist were gentle when exercising my limb.

1	2	3	4	5

31. Active exercises of all the joints that are not affected should be done at *least twice a day.*

1	2	3	4	5

32. Need to perform static muscle exercises of the immobilized limb every four hours.

1	2	3	4	5

33. Need to alternate contraction and relaxation of the quadriceps muscles *for 5 minutes hourly.*

1	2	3	4	5

34. Strengthen of muscles of the upper arm in readiness for crutch walking immediately after injury is necessary.

1	2	3	4	5

35. Exercise must be gradually increased e.g. distance walked.

1	2	3	4	5

36. Physiotherapist were gentle and supportive when teaching crutch walking.

1	2	3	4	5

37. Should be able to move in and out of bed independently when ambulated.

1	2	3	4	5

38. Need to continue with exercise program in absence of the rehabilitation team.

1	2	3	4	5

39. It is important to follow the rehabilitation regime as taught.

1	2	3	4	5

40. Complications may rise due to inactivity or non-compliant.

1	2	3	4	5

41. Was given good advice about the do's and don't's at home e.g. non-weight bearing of affected limb, climbing up and down stairs.

1	2	3	4	5

42. Rehabilitation process was not too demanding. There was a balance between exercise and rest.

1	2	3	4	5

ATTITUDE TOWARDS PSYCHOSOCIAL REHABILITATION

43. I see myself as different and worthless.

1	2	3	4	5

44. Have lost interest in everything beyond self.

1	2	3	4	5

45. I am able to assess my limitation and capabilities.

1	2	3	4	5

46. I feel that I have to deal or satisfy too many people.

1	2	3	4	5

47. I accept the assumption that changes in lifestyle are usually an ongoing process.

1	2	3	4	5

48. Feel I need to assume more responsibility for own care.

1	2	3	4	5

49. I am coping well with my injury.

1	2	3	4	5

50. Getting enough sedation to relief pain.

1	2	3	4	5

51. Rehabilitation team were friendly and helpful.

1	2	3	4	5

52. Rehabilitation team pay attention to my activities and give advice (supportive)

1	2	3	4	5

53. Able to influence the rehabilitation team's decisions when they affect you.

1	2	3	4	5

54. Television was provided to prevent boredom.

1	2	3	4	5

55. Family members will do everything for me at home.

1	2	3	4	5

56. I feel I will be able to use crutches freely at home.

1	2	3	4	5

57. I will be able to use public transport without any problems.

1	2	3	4	5

58. I feel I am well rehabilitated.

1	2	3	4	5

59. I feel I will be able to continue with my hobbies.

1	2	3	4	5

ATTITUDE TOWARDS VOCATIONAL REHABILITATION

60. I feel I will be able to return to my previous job.

1	2	3	4	5

61. Vocational counseling was done while I was still hospitalized.

1	2	3	4	5

62. Vocational counselor contacted my employer regarding my employment.

1	2	3	4	5

63. Sick-leave was organized while I was still recovering.

1	2	3	4	5

64. Unemployment claim form filled in while still in the hospital.

1	2	3	4	5

65. Received relief fund while still in the hospital.

1	2	3	4	5

66. I will not need a disability grant because I will be going to my previous job.

1	2	3	4	5