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## Knowledge regarding complications of fracture among Orthopedic patients admitted in NMCH, Nellore, Andhra Pradesh

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### Abstract

**Background:** Fracture is break in the continuity of the bone fracture may affected tissue or organs near the bones an extent blood supply to the extremities has been become interrupted as a result of fracture the tissue can become ischemic in a very short term resulting in permanent damaged, impaired skin integrity immobility with cause discomfort to the patient when caring for the client with a fracture the nurse asides for Neuro vascular and systemic complication general nursing measures provide comfort measures.

**Aim:** The aim of the study was to assess the knowledge regarding complications of fracture among orthopaedic patients.

**Objectives:** 1. To assess the level of knowledge regarding complications of fracture among orthopaedic patients. 2. To find the association between level of knowledge among orthopaedic patients with their socio demographic variables.

**Methodology:** 60 orthopaedic patients admitted in Narayana Medical College Hospital, Nellore were selected by using Non-probability convenience sampling technique method.

**Results:** Regarding the level of knowledge on complications of fracture among Orthopedic patients, 4(6.7%) patients obtained A grade, 18(30%) patients obtained B+ grade, 20(33.3%) patients obtained B grade, 8(13.3%) patients obtained C grade, and 10(16.7%) patients obtained D grade.

**Keywords:** Knowledge, complications, fracture, Orthopedic patients

### Introduction

The Musculoskeletal system encompasses the muscles, bones, and joints. The completeness of an assessment of this system depends largely on the needs and problems of the individual client. The nurse usually asses the musculoskeletal system for muscle strength, tone, size, and symmetry of muscle development and for tremors. Fracture is break in the continuity of the bone fracture may affected tissue or organs near the bones an extent blood supply to the extremities has been become interrupted as a result of fracture the tissue can become ischemic in a very short term resulting in permanent damaged, impaired skin integrity immobility with cause discomfort to the patient when caring for the client with a fracture the nurse asides for Neuro vascular and systemic complication general nursing measures provide comfort measures <sup>[1]</sup>.

Management of fracture is immediately after injury, whenever a fracture is suspected, it is important to immobilize the body part. The extremity is supported above and below the fracture site to prevent rotation as well as angular motion, adequate splinting, including joints adjacent to the fracture is essential. Movement of fracture fragments cause additional pain, soft tissue damage, and bleeding. Temporary well-padded splints, firmly bandaged over clothing, serve to immobilize the fracture <sup>[2]</sup>.

The nurse encourage patients with closed fracture to their usual activities a rapidly as possible. The nurse teachers patients how to control swelling and pain associated with the fracture and soft tissue trauma and encourages them to be active within the limits of the fracture immobilization. It is important to teach exercises to maintain the health of an attended muscles and to increase the strength of muscles needed for transferring and for using assistive device <sup>[3]</sup>.

Early complications of life mainly include vascular damage such as disruption to the femoral artery. Its major branches by femoral fracture damage to the pelvic arteries by pelvic fracture multiple rib fracture, pneumothorax, flail chest, respiratory compromise, Hip fracture etc. <sup>[4]</sup>.

**Need for the study**

According to WHO, Physical disability and they affect hundreds of millions of people around the world. At any one time 30% of American adults are affected by joint pain, swelling or limitation of movement. This has been recognized by the united national and WHO with their endorsement of bone and joint decode 2000-2016 [5].

Each year the incidence of osteoarthritis is higher among women than men. The incidence rate of 2.95 per 1000 population in women 1.71 per 1000 population in men. 65-75 year reaching approximately 13.5 per 1000 population as per year, for men highest. Incidence occur among their ages greater than are equal to 9 per 1000 population per year [6].

In India incidence of complication of fracture is increasing at a very fast developing countries like India and poses a major health burdens. The epidemiological data of maxillofacial trauma during a 6 year period was analyzed to study the characteristics. A total of 638 patients presenting with 869 maxilla facial fracture were analyzed. Most of them [344 (53.9%) were young adult aged 18-40 whereas 123 (19.2%) were 11 to 17years and 97 (15.2%) adult men (79.4%) were more affected women] [7].

A retrospective study conducted on to determine the knowledge of adults in prevention of complication of fracture. the sample size is 290 from 5 independent hospitals were enrolled in the study each test class room, and only the test class room, a control class room and only the test class room received the intervention. Data collection period was one month. The conclusion point out 50% very poor knowledge regarding the prevention of complication of fracture [8].

**Statement of the problem**

A study to assess the knowledge regarding complications of fracture among orthopedic patients in NMCH, Nellore, Andhra Pradesh.

**Objectives**

- To assess the level of knowledge regarding complications of fracture among orthopaedic patients.
- To find the association between level of knowledge regarding complications of fracture among orthopaedic patients with their selected socio demographic variables.

**Delimitations**

- Orthopedic patients admitted in Narayana Medical College Hospital, Nellore.
- Patients willing to participate in the study
- Sample size of 60.

**Methodology****Research Approach**

A quantitative approach was adopted to determine the research study.

**Research Design**

The present study was conducted by using descriptive research design

**Setting of the study**

The study was conducted at Narayana Medical College Hospital, Nellore.

**Target population**

The target population for the present study was orthopedic patients.

**Accessible population**

The accessible population for the present study was orthopedic patients admitted in Narayana Medical College Hospital, Nellore and who fulfilled the inclusion criteria.

**Sample size**

The samples consist of 60 orthopedic patients.

**Sampling technique**

Non-probability convenience sampling technique was adapted for the study.

**Criteria for sampling selection****Inclusion criteria**

- Orthopedic patients admitted in Narayana Medical College Hospital, Nellore.
- Patients who can read or write in Telugu or English.
- Patients are willing to participate in the study.

**Exclusion criteria**

- Orthopedic patients are willing to participate in the study.
- Orthopedic patients who are critically ill.

**Variables of the study**

- **Research variable:** Level of knowledge regarding complications of fracture among orthopedic patients.
- **Demographic variables:** It includes age, gender, education, occupation, income, religion, type of family, place of residence and source of information.

**Description of the tool**

**Part-I:** Socio demographic variables.

**Part-II:** This consists of structured questionnaire to determine the knowledge on complications of fracture among orthopedic patients.

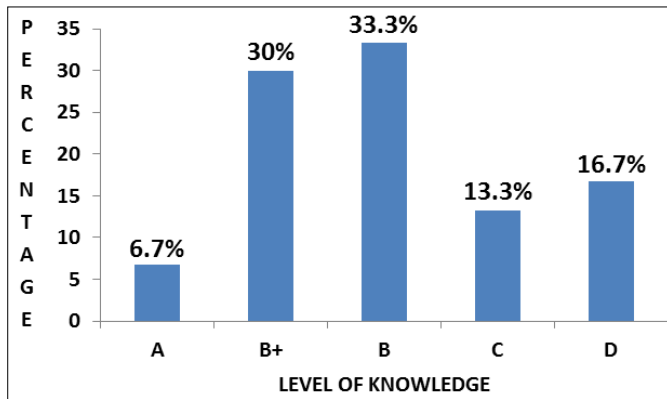
**Table 1:** Score interpretation

| Grade | Score         |
|-------|---------------|
| A+    | More than 85% |
| A     | More than 75% |
| B+    | More than 65% |
| B     | More than 55% |
| C+    | More than 50% |
| C     | Less than 50% |

**Data analysis and discussion**

**Table 2:** Frequency distribution of level of knowledge regarding complications of fracture among orthopedic patients (N=60)

| Level of knowledge | Frequency(f) | Percentage (%) |
|--------------------|--------------|----------------|
| A                  | 4            | 6.7            |
| B+                 | 18           | 30             |
| B                  | 20           | 33.3           |
| C                  | 8            | 13.3           |
| D                  | 10           | 16.7           |
| Total              | 60           | 100            |



**Fig 1:** Percentage distribution of level of knowledge among orthopedic patients

**Table 2:** Mean and standard deviation of knowledge score among orthopedic patients (N=60)

| Level of knowledge  | Mean  | SD    |
|---------------------|-------|-------|
| Orthopedic patients | 17.63 | 4.452 |

**Major findings of the study**

- Regarding the level of knowledge on complications of fracture among Orthopedic patients, 4(6.7%) patients obtained A grade, 18(30%) patients obtained B+ grade, 20(33.3%) patients obtained B grade, 8(13.3%) patients obtained C grade, and 10(16.7%) patients obtained D grade.
- The mean knowledge score of orthopedic patients was 17.63 and standard deviation was 4.452.
- Regarding association with demographic variables, age and education had significant association with level of knowledge at  $P < 0.05$  level.

**Conclusion**

The study concluded that majority of orthopedic patients, 20(33.3%) patients obtained B grade knowledge regarding complications of fracture.

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