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A descriptive study to assess the knowledge and attitude regarding traction among fracture patients in selected hospitals of Uttara Kannada district, Karnataka

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Abstract
Fractures are a common occurrence that can significantly impact individual's physical wellbeing and quality of life. Effective management of fractures often involves the use of traction a therapeutic technique that applies tension to the affected limb or body parts. A descriptive study to assess the knowledge and attitude regarding traction among fracture patients in selected hospitals of Uttara Kannada district, Karnataka. Hundred samples were selected by purposive sampling method. Data was collect by structured questionnaire which is designed to assess the knowledge regarding traction. The data collected was analyzed using descriptive statistics. The findings revealed that the mean knowledge score was 12.93 in Uttara Kannada.

Methodology: The present study based on the Quantitative research approach this was a non experimental descriptive research design. Research setting Selected Uttara Kannada Hospitals. Sample size was 100. Subjects was selected purposive sampling technique. The tool was structured knowledge and attitude questionnaire. Data analysed by descriptive and inferential statistics.

Results: The findings related to demographic variables: Among the total fracture patients 27(27%) of fracture patient residing in Uttara Kannada belonged to age group of 18-30 years, maximum number of fracture patients 53(53%) are male, maximum number of fracture patients 39(39%) education status is primary school, maximum of fracture patients 59(59%) are residing in rural area, maximum number of fracture patients 34(34%) are non-government employee, maximum number of fracture patient 34(34%) source of knowledge is through television.

The distribution of knowledge scores. The knowledge was distributed with mean score of 12.93, median of 13, mode of 10 and standard deviation of 1.817.The distribution of attitude scores. The attitude was distributed with mean score of 13.68, median of 14.5, mode of 12.4 and standard deviation of 3.309.Chi-square established at 0.05 level of significance denotes the no association between the knowledge and demographic variables. Hence there is no significant association found with this demographic variables. Chi-square established at 0.05 level of significance denotes the association between the attitude and demographic variables. Age, gender, education, place of residence and source of knowledge, but occupation of fracture patient was more than the tabulated value. Hence there is significant association found with this demographic variables.

Conclusion: The overall findings of the study revealed that there was average knowledge and good attitude regarding traction among fracture patients in selected hospitals of Uttara Kannada District.

Keywords: Knowledge, traction, fracture, attitude, patients

Introduction
Modern industrialized life and increasing incidents of road accidents and other incidents have led to an increased incidents have led to an increased incidence of fractures. When fracture occurs, elderly bones don't heal readily because the physiologic exchange of mineral has decreased advancing age, making the process of repair much slower. The annual incidence of mild shaft femur fractures in USA is about 10 per 100,000 person. Each year, more than 340,000 cases of hip fracture occurs in America and 1.6 million cases worldwide, out of which 13% to 37% lose their lives. Morbidity and mortality of these fractures are high. Following hip fractures, 50% of patients are unable to walk without aid, 25% required long term care, and 20% die during the first year[1].

The overall goals of fracture treatment are anatomic realignment of bone fragments (reduction), immobilization to maintain realignment, restoration of normal or near normal function of the injured part, and establish a study union between the broken ends of the bone. Reducing a fracture involves restoring proper alignment to the injured bone. Treatment of fracture include one or more methods: traction, closed or open reduction, internal or external fixation, or cast application. The treatment method depends on several factors, including the first aid given, the location and severity of the break, and the age and overall physical condition of the client.

Need for study

Fracture incidence is multifactorial and often complicated by such factors as the patient age sex morbidities lifestyle physiological status and occupation. In United States, 5.6 million fractures occur each year. The overall fracture incidence in the Scottish case series was 1.3% in men and 1.16% in women. Interestingly, there was a bimodal distribution of fracture in males with a high incidence in young men and a second rise in men starting at the age of 60 years. In women there was an unmoral distribution of fracture with the raise around the time of menopause. India hobbles to second place in hip fracture with 4.4lakh people falling every year. Currently India has approximately 26 million osteoporosis patient which is expected to reach 36 million by 2013. Indians have been found to have about 15 per unit lower bone density.[3]

Accordingly 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 Nations and WHO with their endorsement of bone and joint decade 2000-2016. 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 occurs among their ages greater than are equal to 90 per 1000 population per year.[3]

Traction is the use of a pulling force to treat muscle and skeleton disorders. Refers to the set of mechanism for strengthening broken bones or relieving pressure on the spine and skeletal system. Orthopedic patient is that person who has problems in her/his musculoskeletal system and needs help from orthopedic team. Traction plays very important role in many less-served parts of the world. Medical staff must be aware of the needs of this patient and ensure prophylaxis for deep vein thrombosis, pulmonary and pin-site care, skin hygiene and timely exercise. Traction related complications will be reduced by maintaining quality of nursing care and adequate maintenance of traction which will also increase the patients satisfaction still there is existing gap in maintaining proper quality of nursing care For which patient outcomes is unsatisfactory. Due to lack of study in this area, this study is conducted to evaluate the quality of nursing care for patient of lower limb fracture with traction and patient outcomes in terms of patient satisfaction

Research Methodology

Problem Statement: "A Descriptive study to assess the knowledge and attitude regarding traction among fracture patients in selected hospitals of Uttara Kannada district, Karnataka."

Objectives of the study

1. To assess the level of knowledge regarding traction among the fracture patients in a selected hospitals Uttara Kannada district.
2. To assess the level of attitude regarding traction among fracture patients.
3. To find out association between knowledge scores and selected demographic variables traction among the fracture patients.
4. To find out association between attitude scores and selected demographic variables traction among the fracture patients.

Research methodology is a way of explaining how a researcher intends to carry out the research. It is a logical, systematic plan to resolve a research problem. A methodology details a researchers approach to be research to ensure reliable, valid result that address their aims and objectives. It encompasses what data they are going to collect their and where from, as well how it's being collected and analyzed.

Research Approach: Quantitative research approach was used for the present study.

Research Design: non-experimental descriptive research design was used for the study.

Research variables

A research variable can define as qualities, attributes, properties or characteristics that are observed or measured in a natural setting without manipulating and establish cause and effect relationship in descriptive, exploratory, comparative, and qualitative research studies.

Research variable under the study

Demographic Variables: Age, sex, Education, Occupation, Income, source of knowledge

Dependent Variable: A dependent variable is one whose value varies in response to the change in the value of an independent variable.

Research variable: Knowledge and attitude regarding fracture. In this study dependent variable is traction and fracture patients.

Independent variable: An independent variable is a condition in a research study that causes an effect on dependent variable.

Population

A population is the complete set group of individual, whether that group comprises a nation or a group of people with a common characteristic. Population is divided into two group; target population and accessible population.

In this study population comprises all the fracture patients in selected hospital of Uttara Kannada.

Target population: The target population is the entire population or group, that a researcher is interested in

researching and analyzing.
In this study population comprises of all the fracture patients in selected hospitals of Uttara Kannada.

Accessible Population: It is the aggregate of the cases that confirm to designate criteria and are also accessible as subjects for the study.
In this study population comprises of all the fracture patients in selected hospitals of Uttara Kannada
(Nursing research and statistics, by Suresh k Sharma population, sample and sampling page no: 251-3rd edition)

Samples
A sample is a group of people who have been selected from a larger population to provide data to researcher.
In this study, sample consists of 100 fracture patient in selected hospitals of Uttara Kannada, Karnataka.

Sampling technique
Sampling technique is the process of studying the population by gathering the information and analyzing the data.
In this study, purposive sampling method used is, which a type of non-probability sampling.

Sampling Criteria
The researcher specifies the characteristics of the population under study by detailing inclusive criteria in the study.
Inclusion criteria are characteristics that the prospective subjects must have if they are to be included in the study. Exclusion criteria are those characteristics that disqualify prospective subjects from inclusion in the study.

Inclusion criteria
The study samples include fracture patients who are,
- Available during the data collection.
- Willing to participate in the study.
- Able to read and understand Kannada

Exclusion criteria.
In the present study excludes fracture patients from the study, who are,
- Not willing to participate in the study.
- Not available during the data collection.

Description of tool: Tools were consisted of three parts:
Part I: Socio demographic data for fracture patients
The section of tool consists of 7 items developed for obtaining information about the background factors such as age, gender, education, place of residence, occupation, source of knowledge of fracture patients in Uttara Kannada, Karnataka.

Part II: Knowledge questionnaire for fracture patients.
Structured questionnaire contains 30 MCQ's, which is developed to find out the knowledge regarding fracture among fracture patients in selected hospitals of Uttara Kannada, Karnataka.

Part III: Attitude questionnaire for fracture patients.
Attitude questionnaire contains 20 Yes/No questions, which is developed to find out the attitude regarding fracture among fracture patients in selected hospitals of Uttara Kannada, Karnataka.

Plan for data analysis
Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. The data obtained were entered into a master sheet and analyzed using both descriptive and inferential statistics based on the objectives and hypothesis of the study. The data will be presented in figures and tables.

Results
The analyzed data was organized and presented under following sections:

Section A: Findings related to socio-demographic variables of fracture

Section B: Analysis and interpretation of the findings related to knowledge of fracture patients

Section C: Analysis and interpretation of the findings related to attitude of fracture patients

Section D: Association between Knowledge and Demographic Variable of fracture patients.

Section E: Association between attitude and Demographic Variable of fracture patients.

Section A: Findings related to socio-demographic variables of fracture

Table 1: Findings related to socio-demographic variables of fracture patients residing in Uttara Kannada district N=100

Sl. No.	Socio-demographic variables	Frequency	Percentage
1.	**Age (Years)**		
	18-30 years	27	27%
	31-40 years	28	28%
	41-50 years	45	45%
2.	GENDER		
	Male	53	53%
	Female	47	47%
3.	**Educational Status**		
	Illiterate	13	13%
	Primary school	39	39%
	Higher secondary school	29	29%
	Graduate	19	19%
5.	**Place of Residence**		
	Urban	41	41%
	Rural	59	59%
6.	**Occupation**		
	Government employee	6	6%
	Non-government employee	34	34%
	Businessman	20	20%
	Student	10	10%
	House wife	30	30%
7.	**Source of Knowledge**		
	Newspaper	21	21%
	Television	34	34%
	Books	33	33%
	Internet	12	12%

Section B: Analysis and interpretation of the findings related to knowledge of fracture patients

Table 2: distribution of mean, median, mode and standard deviation of knowledge score

Sl. No	Mean	Median	Mode	Standard deviation
1	12.93	13	13	1.817

Table 2: Represents the distribution of knowledge score. The knowledge was distributed with a mean of 12.93, median 13, mode 13 and standard deviation 1.817.

Figure 1: Frequency and percentage distribution showing the level of knowledge regarding the traction among fracture patients residing in Uttara Kannada.

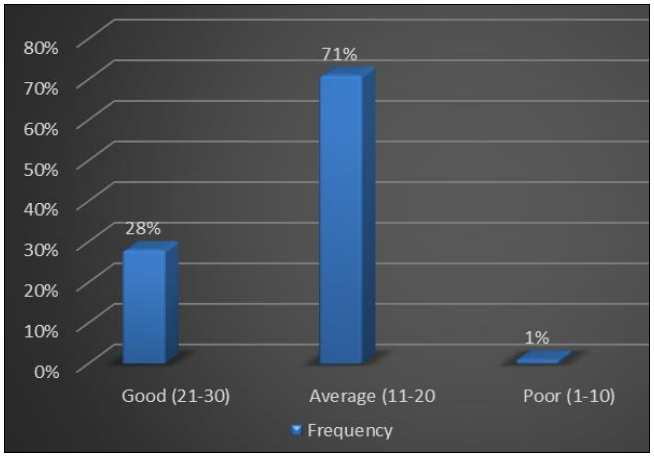

Fig 1: The bar diagram represents the frequency and percentage distribution showing the level of knowledge regarding traction among the fracture patients in Uttara Kannada.

Section C: Analysis and interpretation of the findings related to attitude of fracture patients

Table 3: distribution of mean, median, mode and standard deviation of attitude score

Sl. No	Mean	Median	Mode	Standard deviation
1	13.68	14.5	12.04	3.309

Table 3: Represents the distribution of attitude score. The attitude was distributed with a mean of 13.68, median 14.5, mode 12.04 and standard deviation 3.309.

Figure 2: Frequency and percentage distribution showing the level of attitude regarding the traction among fracture patients residing in Uttara Kannada.

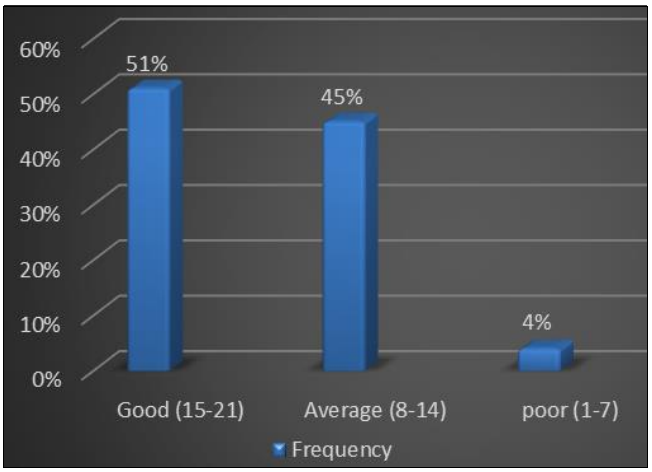

Fig 2: The bar diagram represents the frequency and percentage distribution showing the level of attitude

Section D: Association between Knowledge and Demographic Variable of fracture patients

Table 4: Association between Knowledge and Demographic Variable of fracture patients

Sl. No	Demographic variables	Chi-square value	Df	Table value	Significance
1	Age	1.008	4	9.49	NS
2	Gender	0.584	2	5.99	NS
3	Education	4.458	6	12.59	NS
4	Place of residence	2.249	2	5.99	NS
5	Occupation	11.547	8	15.51	NS
6	Source of Knowledge	1.990	6	12.59	NS

Here the chi square value less than table value for the variable such as age, gender, education, place of residence, occupation and source of knowledge of fracture patients. So, research hypothesis is rejected and concluded that there is no association between level of knowledge and demographic variables of fracture patients. There is no significant association found between level of knowledge and demographic variables such as age, gender, education, place of residence, occupation and source of knowledge.

Section E: Association between attitude and Demographic Variable of fracture patients.

Table 5: Association between attitude and Demographic Variable of fracture patients

Sl. No	Demographic variables	Chi-square value	Df	Table value	Significance
1	Age	7.168	4	9.49	NS
2	Gender	1.046	2	5.99	NS
3	Education	3.900	6	12.59	NS
4	Place of residence	4.126	2	5.99	NS
5	Occupation	15.942	8	15.51	S
6	Source of Knowledge	6.663	6	12.59	NS

Here the chi square value more than table value for the variable such as, occupation of fracture patients. So research hypothesis is accepted and concluded that there is association between level of knowledge and occupation of fracture patients. There is no significant association found between level of knowledge and demographic variables such as age, gender, education, place of residence, and source of knowledge.

Discussion

The first objective of the study was to assess the level of knowledge regarding traction among the fracture patients the assessment of knowledge of fracture patients regarding traction on fracture. Findings of the study revealed that 01% had good knowledge, 71% had average knowledge and 28% had poor knowledge. The knowledge was distributed with a mean of 12.93, median 13, mode 13 and standard deviation 1. 817. The second objective of the study was to assess the level of attitude regarding traction among fracture patients. Findings of the study revealed that 51% had good attitude, 45% had average attitude and 04% had poor attitude the attitude was distributed with a mean of 13.68, median 14.5, mode 12.04 and standard deviation 3.309. The third objective of the study was to find out association between knowledge scores and selected demography various traction among the fracture patients. The Chi-square established at

0.05 level of significance denotes the no association between the knowledge and demographic variables like age, gender, education, place of residence, occupation and source of knowledge of fracture patients. The calculated value for age of fracture patient (1.008), gender of fracture patients (0.584), education of fracture patients (4.458), place of residence of fracture patients (2.249), occupation of fracture patients (11.547) and source of knowledge of fracture patients (1.990) were less than the tabulated value hence there is no significant association found with this demographic variable.

Conclusion

This chapter deals with the conclusion of the study which was done to assess the knowledge of fracture patients the knowledge was distributed with mean of 12.93, median of 13, mode 13 and standard deviation of 1.817.; the attitude was distributed with mean of 13.68, median of 14.5, 12.04 and standard deviation of 3.309.

Limitations

- The study was confined to small number of samples which limits the generalization of the findings.
- The study was only limited to the health care workers and care givers and who all were available at the time of study period.
- A descriptive questionnaire was prepared for data collection, which restrict the amount of information that can be obtained from the respondents.
- Knowledge and attitude were tested through this study.

Conflict of Interest

Not available

Financial Support

Not available

References

1. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Fractures [Internet]. Bethesda (MD): National Institute of Arthritis and Musculoskeletal and Skin Diseases; c2023 [cited 2023 Oct 11]. Available from: https://www.niams.nih.gov/health-topics/fractures
2. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Osteoporosis [Internet]. Bethesda (MD): National Institute of Arthritis and Musculoskeletal and Skin Diseases; c2023 [cited 2023 Oct 11]. Available from: https://www.niams.nih.gov/health-topics/osteoporosis
3. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Bone Density Test [Internet]. Bethesda (MD): National Institute of Arthritis and Musculoskeletal and Skin Diseases; 2023 [cited 2023 Oct 11]. Available from: https://www.niams.nih.gov/health-topics/bone-density-test
4. Gartland JJJR, Werley CW. Evaluation of healed Colles' fractures. J Bone Joint Surge Am. 1951 Oct;33-A(4):895-907. PubMed PMID: 14880544 National Center for Health Statistics. National Health and Nutrition Examination Survey (NHANES): Dual energy X-ray absorptiometry (DXA) procedures manual; c2007. Available from: https://www.cdc.gov/nchs/data/nhanes/nhanes_07_08/manual_dexa.pdf.
5. Cambridge University Press. Patient [Internet]. Cambridge (UK): Cambridge University Press; 2023 [cited 2023 Oct 11]. Available from: https://dictionary.cambridge.org/dictionary/english/patient
6. Nursing research and statistics, by Suresh k Sharma population, sample and sampling page no: 251-3rd edition.
7. Boraiah S, Paul O, Hammoud S, *et al*. Predictable healing of femoral neck fractures treated with intraoperative compression and length-stable implants. J Trauma. 2010;69:142-147 Available at: https://sci-hub.se/10.1097/TA.0b013e3181bba236
8. Brauer CA, Coca-Perraillon M, Cutler DM, *et al*. Incidence and mortality of hip fractures in the United States. JAMA. 2009;302:1573-157. Available at: https://jamanetwork.com/journals/jama/fullarticle/184708
9. Bartlett CS, Hahn JC, Hall JS, Duffy R. Fracture of the Tibial Pilon. In: Browner B. Jupiter J, Krettek C, Anderson P, editor. Skeletal Trauma: Basic Science, Management, and Reconstruction. 5th ed. Philadelphia: Elsevier; 2015. p. 2119. Available at: Surgical Management of Distal Tibia Fracture: Towards An Outcome-based Treatment Algorithm (morthoj.org)

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