

Knowledge of Nursing College Students About Nursing Care for Patients with Skeletal Traction in Mosul University

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ABSTRACT

Background: Orthopedic traction is considered as conservative fractures management strategies. Traction carried out in two common techniques either skin or skeletal traction. Traction is usually used before the surgery to eliminate or at least to minimize bone and muscle ache in order to facilitate the process of surgical treatment.

Aim: This study aims to assess the level of knowledge for nursing college students about nursing management for patients with skeletal traction.

Method and Material: a descriptive study was carried out at the nursing college in Mosul university from period of 20th November / 2020 till 1st March / 2021. A questionnaire was constructed and provided for students which consists of two parts. The first part concerns the demographic data while the second part related to the students' knowledge toward nursing management for patients with skeletal traction and the samples selected by non-probability (purposive) sampling for both the fourth and third stage to be included in the study, the researcher select (25) students from the fourth stage and (25) students from the third stage.

Results: regarding the students' knowledge about nursing management during skeletal traction the total knowledge was accept. The fourth stage knowledge was better than the third stage, there are no-statistical correlation of the age with all the study parts, also the gender non-statistical correlation with all the study parts, but there is found statistical correlation of study stage with all the study parts except the bone traction in general and the risk of bone traction only.

Conclusion and Recommendations: students' knowledge of the third and fourth stage was at not acceptable level. So, the nursing students should be well trained and educated about the nursing care of skeletal traction.

Keywords: Knowledge, Nursing Students, Skeletal Traction

INTRODUCTION

Orthopedics traction is pulling force application in order achieve the desired medical purpose therefore is used and applied to manage muscle and skeletal disorders [1]. Traction is one of the conservative therapeutic options for femur fractures that is still a viable option and often the only alternative for developing nations with limited resources [2]. Even though orthopedic traction has been utilized for several years, the highly available principles remain the same: isotonic traction at a site distal to the fracture on the extremities in line with its longitudinal axis can achieve alignment of a bone fracture. However, with the advancement of orthopedic care and technique, traction is now rarely used [1]. Relatively new traction methods, such as putting two Denham pins 2.5 cm posterior and 2.5 cm proximal to the tibia tubercle in the talus, connecting the pins with a Hoffmann external fixator plug to create a stable concept, and applying free weights to both pins, have been successfully tried and are now commonly used in orthopedic training [3]. Traction is considered one of the most significant immobilization techniques. Traction was a typical treatment method for individuals with hip fractures [4]. A pin, wire, or screw is inserted into the shattered bone during skeletal traction. Weights are attached to some of these instruments once they have been discovered, allowing the bone to be moved into the correct position without difficulty [5]. The nursing staff who are caring for patients with musculoskeletal injuries and conditions must have thorough knowledge and abilities in orthopedic nursing. The orthopedic nurse's role is to promote quality in

orthopedic research, training, and nursing practice in order to advance musculoskeletal healthcare [6]. After being in traction for a few days, the patient may have physical and emotional issues; because he has spent so much time in bed, his muscles are likely weak, and moving around may be unpleasant [7]. Physical therapy should be used as a follow-up for all traction patients in order to alleviate post-traction discomforts and to help the client restore strength and mobility after spending so long time without movement of body parts [8]. A physical therapist can also teach the patient how to cope with any discomforts they may be experiencing as a result of fracture, injury, or even traction, such as weakness or paralysis [9].

METHODOLOGY OF THE STUDY

A descriptive study was carried out at the nursing college in Mosul University from period of 20th November / 2020 till 1st March / 2021. A questionnaire was constructed and provided for students which consist of two parts. The first part concerns the demographic data while the second part related to the students' knowledge toward nursing management for patients with skeletal traction and the samples selected by non-probability (purposive) sampling for both the fourth and third stage to be included in the study, the researcher select (25) students from the fourth stage and (25) students from the third stage. The researchers using SPSS (Version 26) in statically analysis.

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Table 1: The demographic characteristics of the students' respondents in the study

No	The demographical characteristics	Freq.	%	
1.	Age	(20-22)	13	26.0
		(23-25)	28	56.0
		(26-28)	4	8.0
		(29-31)	2	4.0
		(32-34)	2	4.0
2.	Gender	Male	25	50.0
		Fe	25	50.0
3.	Study stage	Third stage	25	50.0
		Fourth stage	25	50.0
Total		40	100.0	

Freq. = frequency %= percentage

Table 2: Statistical result for students' knowledge regarding bone traction according to gender of the sample

The students' knowledge level	Estimate items	Gender		Total
		Male	Female	
The bone traction in general	Fail	1	3	4
	Not accept	11	11	22
	Accept	4	8	12
The risk of bone traction	Good	9	3	12
	Fail	5	6	11
	Not accept	14	9	23
The bone traction procedure	Accept	6	7	13
	Good	0	3	3
	Fail	4	4	8
The nursing managements for patient with bone traction	Not accept	12	11	23
	Accept	6	8	14
	Good	3	1	4
The total students' knowledge regarding bone traction	Excellent	0	1	1
	Fail	4	1	5
	Not accept	5	7	12
The total students' knowledge regarding bone traction	Accept	11	10	21
	Good	1	6	7
	Excellent	4	1	5
Total	Fail	3	0	3
	Not accept	8	9	17
	Accept	10	11	21
Total	Good	0	5	5
	Excellent	4	0	4
	Total	25	25	50

Table 3: Statistical differences result for students' knowledge regarding bone traction

The students' knowledge level results	Mean	Std. D.
1. The bone traction in general	1.64	0.942
2. The risk of bone traction	1.16	0.842
3. The bone traction procedure	1.34	0.917
4. The nursing managements for patient with bone traction	1.90	1.093
5. The total students' knowledge	1.80	0.990

std. d. = standard deviation

Table 4: Statistical result for students' knowledge regarding bone traction items or parts

No	The students' knowledge items	Estimate level	Freq.	%
1.	The bone traction in general	Fail	4	8.0
		Not accept	22	44.0
		Accept	12	24.0
		Good	12	24.0
		Excellent	0	0.0
2.	The risk of bone traction	Fail	11	22.0
		Not accept	23	46.0
		Accept	13	26.0
		Good	3	6.0
		Excellent	0	0.0
3.	The bone traction procedure	Fail	8	16.0
		Not accept	23	46.0
		Accept	14	28.0
		Good	4	8.0
		Excellent	1	2.0
Total			50	100.0

Freq. = frequency %= percentage

Table 5: Statistical result for students' knowledge level results regarding nursing managements for patient with bone traction

The students' knowledge level	Estimate items	Freq.	%
The nursing managements for patient with bone traction	Fail	5	10.0
	Not accept	12	24.0
	Accept	21	42.0
	Good	7	14.0
Total	Excellent	5	10.0
	Total	50	100.0

Freq. = frequency %= percentage

DISCUSSION

Traction has long been used in orthopedic and trauma surgery. It has long been used to treat bone fractures and dislocations in people of all ages [10]. The role of modern traction remains mainly in temporizing method of splinting and managing of fractures before surgery [11]. Table (1) demonstrated that the demographic variables of the students' respondents in the study, that 56.0% (28) of the sample at age (23-25), but equal in the gender as male and female, also the level of education stage (third and fourth stage) of the sample at college. Table (2) shows statistical result for students' knowledge regarding bone traction according to gender of the sample, most of the knowledge level at the not accept estimate level except the total students' knowledge regarding bone traction at accept estimate level. Table (3) shows the statistical differences result for students' knowledge regarding bone traction that including mean and standard deviation. Table (4) presents the statistical result for students' knowledge regarding bone traction items or parts. That the knowledge regarding the bone traction in general is 44.0% (22) of the students' results at not acceptable level, the risk of bone traction is 46.0% (23) of the students' results at not acceptable level, also the bone traction procedure is 46.0% (23) of the students' results at not acceptable level. Table (5) presents the statistical result for students' knowledge level results regarding nursing managements for patient with bone traction that 42.0% (21) of the sample at acceptable

Table 6: statistical correlation of demographic characteristics results and students' knowledge level regarding bone traction

Students' knowledge	Age		Gender		Study stage	
	P.value	Sig.	P.value	Sig.	P.value	Sig.
The bone traction in general	0.603	Non-s	0.135	Non-s	0.234	Non-s
The risk of bone traction	0.174	Non-s	0.318	Non-s	0.741	Non-s
The bone traction procedure	0.705	Non-s	0.879	Non-s	0.002	S
The nursing managements for patient with bone traction	0.680	Non-s	0.702	Non-s	0.012	S
The total students' knowledge regarding bone traction	0.795	Non-s	0.778	Non-s	0.001	S

Correlation is significant at the 0.05 level

level. The table (6) shows the statistical correlation of demographic characteristics results and students' knowledge level regarding bone traction. There are no-statistical correlation of the age with all the study parts, also the gender non-statistical correlation with all the study parts, but there is found statistical correlation of study stage with all the study parts except the bone traction in general and the risk of bone traction only.

CONCLUSION

According to the study students total knowledge about nursing management during skeletal traction the total knowledge was accept. And there are no-statistical correlation of the age with all the study parts, also the gender non-statistical correlation with all the study parts, but there is found statistical correlation of study stage with all the study parts except the bone traction in general and the risk of bone traction only.

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Competing Interest: None.

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