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AWARENESS AND PRACTICE OF CAREGIVERS REGARDING PREVENTION OF COMPLICATIONS IN TRACTION PATIENT

Sarita Panta[1]*, Rita Kumari Ban[1], Bimala Pandey[1] and Asmita Dhital[2]

Nepalese Army Institute of Health Science, Sanobharang, Kathmandu, Nepal.

***Corresponding Author: Sarita Panta**

Lecturer, Nepalese Army Institute of Health Science, Sanobharang, Kathmandu, Nepal.

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ABSTRACT

Traction is used to minimize muscle spasm, align and immobilize fractures to reduce deformity and to space between opposing surfaces. The study was conducted to find out awareness and practice of the care givers regarding prevention of complications in traction patients. Descriptive survey design was used in the study. The study was conducted in National Trauma Center, Kathmandu. The population of the study was the care givers of the traction patient who provided at least 24 hours care to the patient i.e 96. They were selected using non probability purposive technique. The semi structured interview schedule was applied to measure the awareness and practice of the respondents. The data was analyzed by using SPSS version 20 software program by descriptive statistics such as frequency, percentage, mean score, standard deviation and inferential statistics like chi-square test. Majority (63.5%) of the respondents had moderate level of awareness. Similarly, less than half (46.9%) of the respondents had high level of practice. There was association between level of awareness and respondent's age (p=0.00), and education (p=0.001). There was also association between level of practice and respondent's age (p=0.00), education (p=0.00) and occupation (p=0.001). There was association between level of awareness and level of practice (p=0.001). The study concluded that effective health education programs should be implemented to increase awareness of caregivers before and during the application of traction to the patient.

KEYWORDS: Care givers, Traction patient, Awareness, Practice.

INTRODUCTION

Traction is the application of a pulling force to a part of the body. Traction is used to minimize muscle spasm: to reduce, align, and immobilize fractures; to reduce deformity; and to space between opposing surfaces. Traction must be applied in a correct direction and magnitude to obtain its therapeutic effects. Traction may be applied to the skin or directly to the bony skeleton.[1]

In the study done in Stavanger University Hospital, Norway; 4890 long-bone fractures were recorded during the study. The overall male incidence was (41%) lower than the female (59%), but the male: female ratio was 2:1 among those <50 years, and 1:3 in those ≥ 50 years. The upper limb fractures incidence was (39%) whereas the lower limb fracture incidence was (61%). Open fracture occurred in 3%, and closed fracture in 97%. Among the total fracture, 8% was diaphyseal fracture in which 9% were treated with traction.[2]

A descriptive exploratory study on the topic caregiver`s knowledge and practice regarding prevention of immobilization complication shows that only 36.6% of caregivers had knowledge about pressure ulcer, 23.3% had knowledge about respiratory complications like pneumonia, 30% had knowledge on DVT and 40% had knowledge on complication.[3]

A descriptive cross-sectional study was done on Knowledge on prevention of complications related to immobility among caregivers of orthopaedic patients at selected hospitals of Chitwan District among caregivers of orthopaedic ward of Chitwan Medical College Teaching Hospital (CMCTH), College of Medical Sciences Teaching Hospital (CMSTH) and Bharatpur Hospital, Chitwan among 133 caregivers. The study findings revealed that the highest mean knowledge of score of caregiver was in the area of joint contracture (44.4%) followed by bedsore (39.3%), hypostatic pneumonia (37.6%), urinary tract infection (32.1) and least mean score was in the area of deep vein thrombosis (25.2%) and constipation (25.1%) respectively. The study concluded that caregivers had poor knowledge regarding preventive measures.[4]

MATERIALS AND METHODS

A descriptive survey design was used and it was conducted at National Trauma Center(NTC),Bir Hospital Kathmandu Nepal. the population was all the care givers of traction patient who provided care for at least 24 hours for the patient having traction. Semi structured interview

schedule was used to collect data in 96 respondents. Non probability purposive sampling technique was used to collect data. Approval was obtained from the institutional research committee of Nepalese Army Institute of Health Science. Permission from hospital administration was obtained. Informed written consent was obtained. Informed written consent was obtained from each participant. Data was collected from 2018 June 3rd to 20 June. All collected data were checked and reviewed for completeness and accuracy. Then it was coded, classified and entered into Statistical Package for Social Sciences (SPSS) version 20 for windows. The findings were presented through tables, inferential statistics i.e, chi-square test was used.

RESULTS

Table. 1: Socio-demographic characteristics of the Respondents' n=96.

Variables	Frequency	Percentage
Age group		
Less than 20 years	3	3.1
20-39 years	41	42.7
40-59 years	19	19.8
60-69 years	24	25.0
More than 70 years	9	9.4
Mean, SD = 46.04, ±19.5		
Sex		
Male	66	68.8
Female	30	31.3
Education		
Literate	73	76
Illiterate	23	24
Literacy (n=73)		
Informal education	1	1.0
Up to primary	22	22.9
Up to lower secondary	7	7.3
Up to secondary	22	22.9
Up to higher secondary	16	16.7
Bachelor/ above bachelor	5	5.2
Religion		
Hinduism	90	93.8
Buddhism	5	5.2
Christianity	1	1.0

Table 1 reveals that highest proportion (42.7%) of respondents were young adults from age between 20 to 39. Majority (68.8%) were male, similarly 76% were literate from which less than one third (22.9%) had completed up to primary and secondary level. Regarding religion, almost all (93.8%) followed Hinduism.

Table 2: Awareness of Respondents on Meaning, Reasons and Complications of Traction Patients. n=96.

Variables	Frequency	Percentage
Meaning of traction		
Application of pulling force	91	92.1
Reasons for application traction*		
Pelvic dislocations	49	51.6
Fracture of long bone of lower limbs	88	92.6
Complication of patient with skeletal traction*		
Pin site infection	87	90.6
Pressure ulcer	56	58.3
Urinary Tract Infection	28	29.2
Constipation	94	97.9
Measures to prevent pin site infection*		
Daily dressing	93	96.9
Keeping the wound dry	94	97.9
Avoiding touching with hands	95	99.0
Measures to prevent pressure ulcer*		
Frequent changing position	96	100.0
Skin care	92	95.8
High fiber diet	2	2.1
Measures to prevent UTI*		
Drink plenty of water	92	95.8
Do not withhold urine	57	59.4
Maintain perineal hygiene	96	100.0
Measures to prevent constipation*		
Consume adequate amount of fluid	87	90.6
High fiber diet	15	15.6
Active and passive exercise	2	2.1
Type of additional food given to patient		
Milk, eggs, meat, vegetables, fruits(protein rich diet)	95	99.0

Multiple response*

Table 3 indicates that, almost all (92.1%) of the respondents answered the meaning of traction. Almost all (90.6%) of the respondents said that pin site infection is the complication seen in patient with skeletal traction. Similarly almost all (97.9%) of the respondents said that constipation is the complication seen in patient with skeletal traction. Regarding the prevention of pin site infection, almost all (99.0%) responded on avoiding touching wound with hands, (97.9%) keeping the wound dry and (96.9%) daily dressing. Regarding the measures to prevent pressure ulcer, all (100%) of the respondents responded on frequent changing position. Regarding the prevention of UTI, all (100%) respondents responded on maintain perineal hygiene. Regarding prevention of constipation, almost all (90.6%) of the respondents responded on consuming adequate amount of fluid. Almost all (99.0%) of the respondents answered correctly that milk, eggs, meat, vegetables, fruits should be given additionally to the patient with traction.

Table. 3: Respondent's Practice on Care of Patients with Traction, n=96.

Description	Frequency	Percentage
Frequency of hand washing*		
Before giving food to patient	96	100.0
Before changing dress of patient	4	4.2
After providing bed pan and urinal	96	100.0
Before and after doing active and passive exercise	2	2.1
Before providing skin care	54	56.2
Frequency of changing position		
Every 2 hourly	54	61.0
Frequency of skin care		
Every 2 hourly	33	34.4
Focus on body part while giving skin care		
Shoulder/back/sacrum	91	94.8
Maintain hygiene of patient*		
Skin care including sponging	94	98.9
Trimming/cutting nails	93	97.9
Helping in oral care	55	57.9

***Multiple response

Table 4 reveals that, regarding the hand washing frequencies, all (100%) of the respondents used to wash hands before giving food to patient and after providing bed pan and urinal. Majority (61.0%) of the respondents used to change the position of the patient 2 hourly and more than one third (34.4%) of the respondents used to provide skin care 2 hourly. Almost all (94.8%) of the respondents focused on shoulder/back/sacrum while providing skin care. Regarding maintaining hygiene of patient, almost all (98.9%) responded on skin care including sponging.

Table. 4: Respondents' level of Awareness regarding Prevention of Complications in Traction Patients.

Level of awareness	Frequency	Percentage
High (80-100)	29	30.2
Moderate (60-79)	61	63.5
Low (<59)	6	6.3

Table 5 reveals that, majority (63.5%) of the respondents had high level of awareness, less than half (30.2%) of the respondents had moderate level of awareness and only (6.3%) had low level of awareness.

Table. 5: Association between Level of Awareness and selected Variables of Respondents' n= 96.

Variables		Level of awareness		
	High	Low	Chi-square value	P- value
	N %	N %		
Age in years				
<40 years	22 50.0	22 50.0	15.092	0.000 #
≥40 years	45 86.5	7 13.5		
Sex				
Male	48 72.7	18 27.3	0.863	0.244
Female	19 63.3	11 36.7		
Education				
Literate	45 61.6	28 38.4	9.594	0.001 #
Illiterate	22 95.7	1 4.3		
Occupation				
Income generating	51 61.4	32 38.6	0.154	0.463
Non-income generating	8 61.5	5 38.5		

#Significant value (P value < 0.005 statistically significant)

Table 9 illustrates that Pearson chi-square test was done to assess association of awareness level with different socio-demographic variables. There is significant association with age (p= 0.00) and education (p= 0.001)(fisher's exact test used). There is no significant association between sex and occupation with awareness level of caregivers regarding prevention of complication in traction patient.

Table 6: Association between Level of Practice and selected Variables of Respondent's.

Variables		Level of Practice		
	High	Low	Chi-square value	p- value
	N %	N %		
Age in years				
<40 years	36 81.8	8 18.2	39.830	0.00#
≥40 years	9 17.3	43 82.7		
Sex				
Male	33 50.0	33 50.0	0.828	0.363
Female	12 40.0	18 60.0		
Education				
Literate	43 58.9	30 41.1	17.705	0.000#
Illiterate	2 8.7	21 91.3		
Occupation				
Income generating	51 61.4	32 38.6	6.671	0.001#
Non-income generating	8 61.5	5 38.5		

#Significant value (P value <0.05 statistically significant)

Table 10 shows that Pearson chi-square test was done to assess association of practice level with different socio-demographic variables. There is significant association of practice with age (p value = 0.00), education (p value = 0.00) (fisher's exact test used) and occupation (p value = 0.001) . Whereas there is no significant association between level of practice and sex.

DISCUSSION

The study findings on caregiver's awareness on complication of skeletal traction, almost all (97.9%) were aware about constipation, 90.6% were aware about pin site infection, more than half (58.3%) were aware about pressure ulcer, and only 29.2% were aware about UTI which is contrast to the study conducted by Poudyal. S. et.al.(2014)-4, which showed that the mean knowledge score of caregivers was in the area of bed sore (39.3%), constipation (25.1%). This may be due to different setting of population.[4]

Regarding the findings of study almost all (99%) agreed that nutritious diet should be taken to prevent complication. This result is contradictory to the study done by Kambli. S. (2012) which showed 72% of respondents had poor knowledge about diet to be followed. This may be due to difference in socioeconomic status of the respondents.[5]

Distributing the respondents who participated in this study, 30.2% had high level of awareness, majority 63.5% had moderate level of awareness and 6.3% had low level of awareness. This is contradictory to the study done by Kambli. S. (2012) which showed that only 12% of the respondents had knowledge on complication of traction. The difference may be due to difference in setting.[5]

Regarding practice of respondents, less than half (46.9%) had high level of practice, nearly one fourth (26.0%) had moderate level of practice and 27.1% had low level of practice. Poudyal S et.al., (20014) concluded that caregivers had poor awareness regarding measures of complication related to immobility which is contradictory to this research and this may be due to different setting of population.[4]

The finding of the study revealed that the association of awareness on prevention of complication in traction patient was significantly associated with respondents' age (p=0.00) and education (p= 0.001). There is no significant association between sex and occupation with awareness level of caregivers regarding prevention of complication in traction patient. Mersal (2014) found a significant relationship between total mean of knowledge, age, sex, education. *Significant value (P value <0.05 statistically significant).[3]

The finding was significantly associated with the practice of respondents and their age (p=0.00), education (0.00) and occupation (0.001). The practice level was not affected by respondents' sex. The study also shows that awareness level and practice level were significantly associated with each other at p-value 0.001. The study done on "Evaluation of Nursing Knowledge and Practice Concerning Nursing Care of patient with skin traction in Orthopedic Units in Kurdistan Region" concluded that there was no significant relationship between nurses' knowledge and practice. The difference may be due to difference in population setting.[7]

The study findings showed that more than half (63.5%) had moderate level of awareness which is contradictory to the study done by Al Barwadi (2006) which concluded that, there was inadequate level of knowledge in nurses of Duhok, ranged between poor (25%) and very good (10%). This may be due to different setting of population.

CONCLUSION

The finding of the study shows that majority of the respondents had high level of awareness and less than half of the respondents had high level of practice. The

awareness level of respondent regarding prevention of complication of traction patient is significantly associated with age and education and not associated with sex and occupation. Similarly the practice level of respondents regarding prevention of complication of traction is significantly associated with age, education and occupation whereas level of practice is not associated with sex.

REFERENCES

1. Brunner LS. Brunner & Suddarth's textbook of medical-surgical nursing. Lippincott Williams & Wilkins, 2010.
2. Meling T, Harboe K, Søreide K. Incidence of traumatic long-bone fractures requiring in-hospital management: a prospective age-and gender-specific analysis of 4890 fractures. Injury. 2009 Nov 1; 40 (11): 1212-9.
3. Mersal FA, Mersal NA, Hussein HA. Effect of Educational Guidelines for Prevention of Immobilization Complications on Caregivers' Performance and Patients' Functional Condition. American Journal of Nursing. 2017; 5(2): 32-41.
4. Poudyal S, Neupane M, Lopchan M. Knowledge on prevention of complications related to immobility among caregivers of orthopedic patients at selected hospitals of Chitwan district. Journal of Chitwan Medical College. 2014; 4(3): 9-12.
5. Kambali, S. Fractured patient's knowledge regarding care and treatment. International Journal of Science and Research(IJSR), 2014; 3(7): 1178-1181.
6. Al-Barwari RH. Evaluation of Nursing Knowledge and Practices Concerning Nursing Care of Patient with Skin Traction in Orthopedic Units in Kurdistan Region. nursing national Iraqi specility. 2006; 19(2): 1.
7. Hajbaghery MA, Moradi T. Quality of Care for Patients With Traction in Shahid Beheshti Hospital in 2012. Archives of trauma research. 2013 Aug; 2(2): 85.
8. Khanal N. Knowledge and practice among the caretakers of bedridden patients on prevention of urinary tract infection. Journal of Universal College of Medical Sciences, 2014; 2(1): 24-9.
9. Malarvizhi A, Hemavathy V. Knowledge on Complications of Immobility among the Immobilized Patients in Selected Wards at Selected Hospital.
10. Mwebaza I, Katende G, Groves S, Nankumbi J. Nurses' knowledge, practices, and barriers in care of patients with pressure ulcers in a Ugandan teaching hospital. Nursing research and practice, 2014; 2014.
11. Sawant N, Shinde M. Nurses Knowledge and Practices towards Prevention of Pressure Ulcer in Tertiary Care Hospital.