

A STUDY TO ASSESS THE HABIT OF MOBILE USE AND KNOWLEDGE REGARDING RADIAL TUNNEL SYNDROME AMONG STUDENTS RESIDING IN SELECTED NURSING HOSTELS AT VIJAYAPUR, WITH A VIEW TO PROVIDE AN INFORMATION BOOKLET

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ABSTRACT

Objective: The objective of this study was to assess the habit of mobile use and knowledge regarding radial tunnel syndrome among nursing students.

Methods: The research design selected for this study is descriptive research design. Using non-probability purposive sampling technique, 100 samples were selected from selected nursing hostels at Vijayapura.

Results: The study result shows that 65 (65%) respondents have average knowledge about radial tunnel syndrome, whereas 14 (14%) respondents have good knowledge and 21 (21%) respondents have poor level of knowledge regarding radial tunnel syndrome. In addition to the habit score of students shows that 58 (58%) habit of mobile use is good, whereas 25 (25%) students habit of mobile use is excellent and 17 (17%) students have average habit of mobile use. The mean percentage of habit of mobile use of nursing students is 49.2% with standard deviation 21.53. The correlation co-efficient value shows that there is negative corelationship [-0.144] exists between knowledge and habit of mobile use regarding radial tunnel syndrome. There is positive significant association found between knowledge score and duration of mobile using. The association of habit score of nursing students with selected demographical variables reveals that there is no significant association of the habit score with demographical variables except duration of mobile using.

Conclusion: The study concludes that most of the nursing students having average knowledge regarding radial tunnel syndrome and good habit of mobile use.

Keywords: Radial tunnel syndrome, Habit of mobile use, Information booklet, Knowledge.

INTRODUCTION

The cell phone allows us the freedom to gather information, communicate, and socialize in ways only dreamed of before the discovery of cellular technology. As the functionality of cell phones continues to expand, addiction to this seemingly indispensable piece of technology becomes an increasingly realistic possibility [1].

Radial tunnel syndrome occurs when the radial nerve in the arm is compressed. The radial nerve can be compressed or irritated in the radial tunnel due to repetitive movements, forceful forearm movements, or injury. This can also happen if the radial tunnel is too small. Repetitive movements such as twisting movements of the forearm, forceful wrist movements, gripping and pinching can irritate, stretch, or compress the nerve [2].

Radial tunnel syndrome causes dull aching pain at the top of the forearm, to the outside of the elbow, or the back of the hand. Patients less often describe the pain as cutting, piercing, or stabbing. It happens most often when the person straightens his or her wrist or fingers. Radial tunnel syndrome can cause fatigue and weakness in the forearm muscles and weakness in the wrist [3].

There are no specific tests to prove a person has radial tunnel syndrome. This makes the diagnosis difficult. The doctor must depend on the patient's physical examination and the type and location of the pain. As part of the examination, the patient is asked to turn his or her palm up with a straight elbow while the doctor restricts arm and hand movement. If the patient feels pain while trying to move the arm or hands against resistance, it is a sign of radial tunnel syndrome.

The radial tunnel syndrome is treated by increased rest and splinting the arm can be quite helpful. Limit heavy pulling, pushing twisting, or grasping

as this can aggravate symptoms. Physical therapy involving exercises and stretching along with electrical stimulation or ice may provide substantial pain relief. Over the counter or prescription, nonsteroidal anti-inflammatory drugs can also ease pain and reduce inflammation [4].

When non-surgical methods fail to provide adequate relief or pain returns shortly after beginning activity, it may be time to consider surgical decompression. An incision is made at the outer aspect of the forearm near the elbow, and the muscle tissues are manipulated so the surgeon can visualize any pressure points where the nerve is being pinched. The tunnel is expanded in those areas relieving pressure and ultimately pain. [5]

Cold treatment (icing) relieves pain and reduces inflammation. Cold treatment should be applied for 10-15 min every 2-3 h for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or massage the area with a piece of ice.

Heat treatment may be used before performing the stretching and strengthening activities prescribed by your caregiver, physical therapist, or athletic trainer. Use a heat pack or soak the injury in warm water.4

Objective

This study aims to assess the habit of mobile use and knowledge regarding radial tunnel syndrome among nursing students.

METHODS

Hypothesis

Tested at 0.05 level of significance.

H₁: There will be a significant association between knowledge with selected demographic variables.

Study design

The research design selected for this study is descriptive research design.

Population

The population of the present study consists of nursing students residing in selected nursing hostels of Vijayapura.

Sample size

Sample size is 100.

Sampling technique

This was a non-probability purposive sampling technique.

Research approach

This was an evaluative research approach.

Study tool

The questionnaire is as follows:

Section A: Sociodemographic data of the nursing students: The sociodemographic data had nine items of related to demographic variables such as age, gender, educational status, marital status, religion, duration of mobile use, type of mobile using, previous information regarding radial tunnel syndrome, and source if information.

Section B: Structured questionnaire to assess the knowledge among nursing students: The structured knowledge questionnaire includes 30 MCQS.

Section C: Structured questionnaires on habit of mobile use.

Statistical analysis

Descriptive results were expressed as a frequency and percentage; Chi-square statistical analysis was used to test for significant association between knowledge and habit score with selected demographic variables.

RESULTS AND DISCUSSION

Section A: Description of demographical variables of students residing in selected nursing hostels, Vijayapura.

Section B: Distribution of knowledge scores of students regarding radial tunnel syndrome.

Section C: Distribution of habit scores of students residing in selected nursing hostels.

Section D: Association of knowledge scores of students with their selected demographical variables n=100.

Section E: Association of habit scores of students with their selected demographical variables n=100.

Section F: Correlation of knowledge score and habit score of students regarding radial tunnel syndrome n=100.

The mean percentage of knowledge of nursing students is 10.8% with standard deviation (SD) 3.75. The mean percentage of habit of mobile use of nursing students is 49.2% with SD 21.53. The correlation coefficient value of knowledge and habit of nursing students is -0.144. This shows that there is negative correlation exists between knowledge and habit of mobile use regarding radial tunnel syndrome.

DISCUSSION

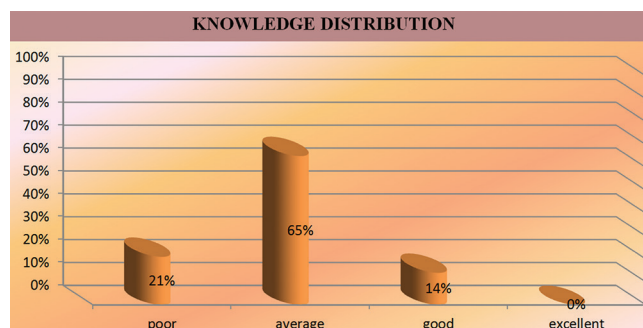
The overall knowledge of the students residing in selected nursing hostel of Vijayapura revealed that most of the respondents 65 (65%) have average knowledge about radial tunnel syndrome, whereas 14 (14%) respondents had good knowledge and 21 (21%) respondents had poor level of knowledge regarding radial tunnel syndrome.

Table 1: Frequency and percentage distribution of nursing students n=100

S No	Variables	Frequency (%)
1	Age in years	
	17-19 years	25 (25)
	20-22 years	67 (67)
	23-25 years	6 (6)
2	26 years and above	2 (2)
	Gender	
	Male	42 (42)
	Female	58 (58)
3	Educational status	
	ANM	0 (0)
	GNM	44 (44)
	B.Sc. Nursing	56 (56)
4	P B.Sc. Nursing	0 (0)
	Religion	
	Hindu	70 (70)
	Christian	24 (24)
5	Muslim	4 (4)
	Others	2 (2)
	Marital status	
	Married	4 (4)
6	Unmarried	95 (95)
	Divorced/separated	0 (0)
	Widow	1 (1)
	Duration of using mobile...?	
7	0-1 year	21 (21)
	2-3 years	43 (43)
	3-4 years	13 (13)
	5 years and more	23 (23)
7	Which type of mobile do you use....?	
	CDMA	7 (7)
	JAVA	9 (9)
	Android	77 (77)
	Windows	7 (7)

Table 2: Frequency and percentage distribution of knowledge scores regarding radial tunnel syndrome

Knowledge level	Frequency (%)
Poor (0-7 scores)	21 (21)
Average (8-14 scores)	65 (65)
Good (15-21 scores)	14 (14)
Excellent (22-26 scores)	0 (0)



The research study was conducted on associations between work-related factors and specific disorders at the elbow: A systematic literature review. The objective of the study is to assess the exposure-response relationships between work-related physical and psychosocial factors and lateral epicondylitis, medial epicondylitis, cubital tunnel syndrome, and radial tunnel syndrome in occupational populations. The study result shows that handling tools >1 kg (ORs of 2.1-3.0), handling loads >20 kg at least 10 times/day (OR 2.6), and repetitive movements >2 h/day (ORs of 2.8-4.7) were associated

Table 3: Frequency and percentage distribution of habit scores of students residing in selected nursing hostels

Habit score	Frequency (%)
Poor (0-19 scores)	0 (0)
Average (20-38 scores)	17 (17)
Good (39-57 scores)	58 (58)
Excellent (58-75 scores)	25 (25)

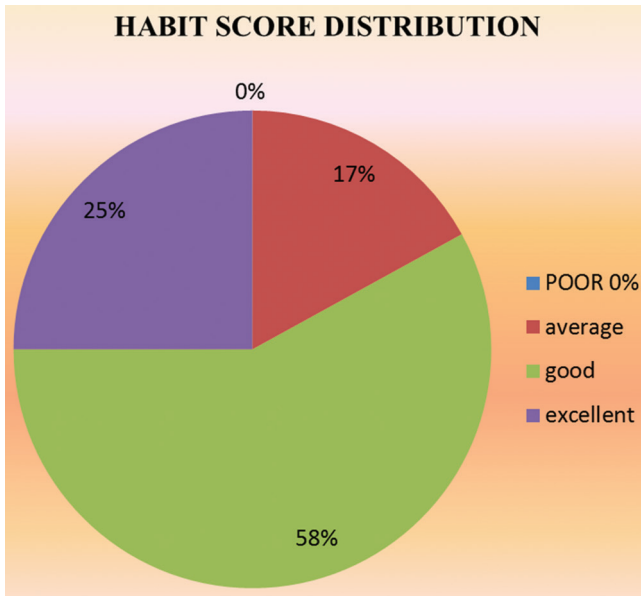


Table 4:

S. No	Demographic variables	Nursing students	Chi-square value	Significance
1	Age (years)	<Mean >Mean	0.36	NS
	17-19	11 14		
	20-22	24 43		
	23-25	3 3		
	26 and above	1 1		
2	Gender		0.06	NS
	Male	16 26		
	Female	23 35		
3	Education status		0.45	NS
	ANM	0 0		
	GNM	18 24		
	B.Sc.	21 37		
	PB.BSc.	0 0		
4	Duration of mobile use (years)		6.89	S*
	0-1	4 17		
	2-3	18 26		
	3-4	6 7		
	5 and more	11 11		
5	Type of mobile		0.46	NS
	CDMA	1 7		
	JAVA	4 4		
	Android	33 43		
	Windows	1 7		

with lateral epicondylitis. Psychosocial factors associated with lateral epicondylitis were low job control (OR 2.2) and low social support (OR 1.8). Handling loads >5 kg (2 times/min at minimum of 2 h/day), handling loads >20 kg at least 10 times/day, high hand grip forces for >1 h/day, repetitive movements for >2 h/day (ORs of 2.2-3.6), and working with vibrating tools >2 h/day (OR 2.2) were associated

Table 5:

S. No	Demographic variables	Nursing students	Chi-square value	Significance
1	Age (in years)	<Mean ≥Mean	3.76	NS
	17-19 years	0 25		
	20-22 years	47 20		
	23-25 years	4 2		
	26 and above	1 1		
2	Gender		0.9	NS
	Male	20 23		
	Female	32 25		
3	Educational status		0.004	NS
	ANM	0 0		
	GNM	22 20		
	B.Sc.	30 28		
	PB.BSc.	0 0		
4	Duration of mobile use (years)		22.6	S
	0-1	9 12		
	2-3	36 18		
	3-4	1 12		
	5 and more	6 16		
5	Type of mobile		0.14	NS
	CDMA	4 4		
	JAVA	5 3		
	Android	39 37		
	Window	4 4		

Table 6:

Sample	Mean (%)±S.D		r-value	
	Knowledge	Habit		
Nursing students	10.8	3.75	49.2	21.53

S.D: Standard deviation

with medial epicondylitis. The occurrence of cubital tunnel syndrome was associated with the factor "holding a tool in position" (OR 3.53). Handling loads >1 kg (OR 9.0; 95% CI 1.4, 56.9), static work of the hand during the majority of the cycle time (OR 5.9) and full extension (0-45°) of the elbow (OR 4.9) were associated with radial tunnel syndrome. The study concludes that several physical and psychosocial factors at work may result in an increased occurrence of specific disorders at the elbow [6].

The overall habit of mobile use of the students residing in selected nursing hostel of Vijayapura revealed that most of the respondents' 58 (58%) habit of mobile use is good, whereas 25 (25%) respondents habit of mobile use is excellent including 17 (17%) respondents have average habit of mobile use.

The correlation coefficient value of knowledge and habit of nursing students is - 0.144. There is negative correlation exists between knowledge of radial tunnel syndrome and habit of mobile using.

CONCLUSION

The study was conducted with the background of habit of mobile use and knowledge regarding radial tunnel syndrome among students. Among 100 nursing hostel, students assess the level of knowledge regarding radial tunnel syndrome and habit of mobile use. The major findings of the study revealed that most of the students 65 (65%) have average knowledge about radial tunnel syndrome, whereas 14 (14%) students had good knowledge and 21 (21%) students had poor level of knowledge regarding radial tunnel syndrome. This study also revealed the habit of mobile use, and it shows that most of the students 58 (58%) habit of mobile use is good, whereas 25 (25%) students habit of mobile

use is excellent and 17 (17%) students have average habit of mobile use.

Recommendations

- The similar studies may be conducted using other alternative therapies for prevention of radial tunnel syndrome
- An exploratory and descriptive study may be undertaken to assess the prevalence of radial tunnel syndrome
- A descriptive study may be conducted to assess the factors influence the prevalence of severity of prevalence radial tunnel syndrome
- Similar study can be done for larger samples for wider generalization.

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