

Knowledge and Attitudes of Physical Therapists towards Pressure Ulcers in Different Hospitals of Multan City, Pakistan

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Author's Contribution

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A B S T R A C T

Background: Pressure ulcers are the most common condition in bedridden patients. Almost every country is dealing with this condition instead primarily or secondary. Proper positioning and care are needed and preferred in this situation by physiotherapists and a complete home plan is given to avoid such conditions related to the disease. In accordance with this major protocol is required in hospital setups to prevent such a situation that is brutal and has increased morbidity and mortality rate.

Objective: To assess knowledge and attitudes of physical therapists in different hospitals of Multan regarding pressure ulcers.

Methodology: Cross-sectional design was conducted at Government and Private Hospital of Multan city and duration was from September to December 2019. 130 physical therapists that were recruited in this study were working in hospital indoors. Sample size was computed through Cochran's formula. PUKT and SAT were used to test the knowledge and attitudes of physical therapists from government and private sector. Descriptive statistics was applied to extract result.

Results: The results were deduced on the basis of satisfactory level of government and private sectors of hospitals. The statistical analysis of knowledge assessment scale "Pressure Ulcer Knowledge Test" shows maximum percentage of satisfaction i.e. 70% with minimum of 20 and maximum range of 47 with the mean value of 33.2. Our second scale "Staff Attitude Test" shows maximum participation of PTs which were 130 with minimum stats of 22 and maximum 51 with mean of 35.9.

Conclusion: Knowledge and attitudes of physical therapists towards pressure ulcers in different hospitals of Multan city was found to be satisfactory.

Keywords: Knowledge, Attitudes, Pressure Ulcers, Physiotherapy

Introduction

Pressure ulcers also categorized as bed sores and now attributed as the injuries which refers through pressure applied to specific and localized part of the body, skin and underlying tissue. It usually occurs over bony prominence when the combination of shear and friction is proposed. Most common skin interaction sites are sacrum, coccyx, heels, hips and utterly involved parts are elbow, knees, ankles, back of shoulders and back of cranium.¹ The severity of pressure ulcers can be judged through discoloured patches and open wounds

that expose bony prominences and muscles profound.² Most frequently affected sites can be 60% of sacrum, involving ischial tuberosities when patient is in sitting position moreover greater trochanter of heel covered 15% of remaining tourniquet. In advanced stage of pressure ulcers, surgical intervention is needed. Nurses may play an important role in wound care and they monitor the condition of patient from bandaging to cleaning.³ Physiotherapy plays a magnifying role in treating pressure ulcers.

These treatments may include the training of caregivers, strengthening exercises, wound care preventions, mobility from bed to seat.⁴ Reduction of pressure ulcers is caused by changing the positions in cyclic way, i.e. after every 1- 2 hours, cleaning instructions and exercise pattern should be followed regularly.⁵ The role of physical therapist in the management of pressure ulcers is making a person mobile and keeps proper notice of its function and skin conditions through proper positioning.⁶ Physiotherapist assesses bed mobility, transitional movements, transfers, cognitive level, ADL function and independence. Keeping an eye on past physical health status and precautions specially associated to surgeries can be noticed.⁷ The primary goal of this research was to inspect and examine knowledge and attitude of physical therapists in different hospitals regarding pressure ulcers.⁸

Methodology

Major Government and Private Hospital of Multan city i.e. Ch. Pervaiz Elahi Institute of Cardiology, Family Health Care and Maternity Home, Nishtar Hospital, Civil Hospital, DHQ Hospital, Aleem Surgical Hospital, Khurshid Rafiq Hospital, Bakhtawar Amin Hospital, Mukhtar A Sheikh Memorial Welfare Hospital and Siyal Hospital. Study design opted that was used was cross- sectional study design. Consent form was filled by 130 physical therapists and questionnaires were distributed as hand-outs in government and private hospitals. Data was collected from physical therapists in hospital settings of Multan. Data was collected by using two main scales. One was knowledge based test and second was attitude based test. On the basis of these two analytical criteria, we performed our research completely on a pure scale judgment. Pressure Ulcer Knowledge Test and Staff Attitude Test were used to test the knowledge and attitudes of physical therapists from government and private sectors.

It was completed in four months from September 2019 to December 2019. Inclusion criterion: Male and female physical therapists, Age 25-50, Physical therapists with at least 1 year of experience (9) Physical therapists dealing with pressure ulcers of grade 1 to 4¹⁰

Exclusion criterion: Physiotherapists working in academics and clinics.

Data analysis: Descriptive statistics was applied to extract result. All the data was entered and analyzed by using SPSS version 20.0

Data collection tools: Pressure Ulcer Knowledge Test (PUKT): Validity results of PUKT as follows: 1) overall CVI was 0.90, 2) IDIs were 35-75%, and 3) DIs was 0.44-0.92. Reliability results of the PUKT as follows: 1) ICC was 0.83, 2) Cronbach's

alfa was 0.72. (11) Sample size calculation: Non-probability convenient sampling technique was used to collect the data. Our total sample size was 130. It was collected by taking the previously mentioned prevalence of PUs (8.7%) in past research by using the Cochran's formula where, $z = 1.96$ and $\alpha = 0.05$.

Ethical approval: After the ethical approval from the ethics committee of Family Hospital and Maternity Home with reference number PT/2019/REC/IRB/021.

Results

The survey was recruited with 130 participants who included 42 government physical therapists and 88 private physical therapists. Out of total that were eligible and meet our inclusion criteria and provide direct bedside care for patients who were bedridden and response rate of 70% was achieved. The majority participants were females 75 (57.7%). The percentage of total males included in this criterion was 55 (42.3%). This percentile shows maximum active participation of physiotherapists. MS degree holders were 77 participants who show their best part in our research whereas bachelor degree holders were 51 who added their interest with participation. The least and minority group involved was of Ph.D. holders whose study was still in process of completion were 2. The Pressure Ulcer Knowledge Test ranges from 0-47 and all participants scored mean ratio of correct and satisfied answers with minimum value of 20 and goes to the maximum of 47 and mean value was 33.25 (Table I). The statistical analysis of participants' demographics according to knowledge and attitude score shows emergent relation in mean ratio of knowledge of participants score about pressure ulcers and level of education as well as professional concerns. Lowest possible score in attitude section was 22 and maximum was 51 with the mean value 35.96 (Table II). With respect to our results, descriptive data and statistical analysis the total confirmatory satisfaction level of PTs who worked indoors in hospital with their maximum participation was considered the percentage of 70% as total.

Approximately maximum PTs agreed that they have better knowledge and concerns regarding their attitude towards PUs. Moreover, maximum participants showed their full support with the behavior that risk assessment can be carried out in participants who were bedridden. In order to understand mean

Table I: Descriptive statistics of knowledge and Attitude

	N	Min.	Max.	Mean \pm Std. Deviation
Knowledge	130	20.00	47.00	33.25 \pm 6.48
Attitude	130	22.00	51.00	35.96 \pm 5.91

difference of knowledge and attitude between government and

coherence to our study, that knowledge and attitude of

Table II: Mean Differences of Knowledge and Attitude Score According To Government and Private Sectors

	Working Sector of Participants	N (130)	Mean	Std. Deviation	Std. Error Mean
Knowledge	Government	42	34.16	6.67	1.02
	Private	88	32.81	6.37	.67
Attitude	Government	42	35.52	5.73	.88
	Private	88	36.17	6.01	.64

private sectors of hospitals, we use sample t-test and the results were non-significant which shows that there is not such variance between these two major sectors.

Discussion

In this research, we observed knowledge and attitudes of physical therapists working in different hospitals towards pressure ulcers. A few researches has been done previously but that included nurses. A study was conducted in 2010 by Tillan Strand and Margaretal Indgren that investigated the attitudes and knowledge faced by registered nurses while working for prevention of pressure ulcer in ICU patients. The results of this specific study were not found out to be satisfactory.¹²

Pieper and Mott concluded that there was no relationship between level of education of physiotherapist and their level of knowledge regarding pressure ulcers. Contrary to that our study showed positive results that people with MS were the ones who contributed majorly to satisfactory score results of both our tools. Knowledge about pressure ulcers could possibly be enhanced by more clinical exposure to older patients, rigorous residency training, and review of AHCPR guidelines.¹³

A study conducted by Donna Martin in 2017 showed that family physicians were not comfortable and were not prepared for managing pressure ulcers. Thus as a result suggestions were given at the end of the study to increases educational component of the physicians regarding ulcers prevention and management. Opposing to that most of the physical therapists in our study who were having at least one year of experience were quiet familiar and had good attitude towards pressure ulcer management.¹⁴

Valentina Simonetti carried out a study to find out information regarding knowledge and attitude of health care workers on pressure ulcers. "The overall Knowledge and Attitude scores were 51.1% (13.3/26) and 76.7% (39.9/52), respectively". Thus health care workers did have acceptable tool score but it was lower than our results. Hence our study showed the score up to 70%.¹⁵

Overall conclusion of this study conducted by Berlowitz D in 2010 gave results and recommendation in

physiotherapists are main criteria and matter of fact in hospital setup so that new modes of intervention can be applied on patient for their better prevention and care.¹⁶

A study conducted by Pieper and Mott computed the results in consistency with our study that knowledge about pressure ulcers could possibly be enhanced by more clinical exposure to older patients, rigorous residency training, and review of AHCPR guidelines.¹³ Noting that minimum experience required dealing with pressure ulcers is at least 1 year.

It is further recommended that data analysis should be done on a larger scale with large sample size. It should include physical therapists that are running their own clinical setups and in academics from past year. Management should also be assessed along with knowledge and attitude to check how well they are playing their role. The prevention of pressure ulcers should also be given equal consideration. New researches in this field should be carried out to know about more and better deals within this study so that new interventions can be made for the coming physiotherapists and made their work easy and more powerful and this made their vision more clear. The limitations include less physical therapists and more technicians availability in hospital indoors, lack of caregiver concerns regarding physiotherapy management towards pressure ulcer's in bedridden patients. Some hospital's authority didn't allow physical therapists to give any information regarding questionnaire.

Conclusion

Our study deduced that most of physiotherapists working in hospitals have satisfactory knowledge and attitude towards prevention of pressure ulcers. This was established through good scores PUKT and SAT.

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