

Knowledge, Attitude and Practices of Psychiatric Nurses towards the Use of Physical Restraints in a tertiary care hospital Lahore, Pakistan

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ABSTRACT

Background: The use of physical restraints for patients' safety and to reduce the interference in treatment is common in psychiatric hospitals. In Psychiatric hospitals, Physical restraint is viewed as a simple solution to maintain patient comfort and safety. Physical restraint is always accompanied by risk of complications but correct application of physical restraints is a central nursing responsibility for patients who are temporarily incapacitated.

Objective: To determine the knowledge, attitude and practices of staff nurses regarding the use physical restraints.

Methodology: A descriptive cross sectional study design was used to achieve the study objective. The present study was carried out among psychiatric nurses at Punjab institute of mental Health, Lahore during month of January 2022 to March 2022. A convenient sample of 150 nurses who were working in the previously mentioned setting was included. In data collection a structured demographic questionnaire and predesigned questionnaire on level of Knowledge, Attitude and Practices of staff Nurses regarding Physical Restraints was used.

Results: The staff nurses mean age was 27.86 ± 3.55 years and mean experience (years) was 4.80 ± 2.53 . The mean standard deviation of level of knowledge, attitude & practices of physical restraints scale was 7.01 ± 0.89 , 35.04 ± 3.62 and 36.26 ± 1.54 among the respondents respectively. Knowledge and attitude was insignificant with sociodemographic and other factors (p -value > 0.05), whereas practices were found significant with gender, marital status, special course attended as well as previous training acquired (p -value < 0.05).

Conclusion: The study concluded that knowledge of Psychiatric nurses in relation to the use of physical restraints was better, attitude of staff nurses was positive regarding use of physical restraints and staff nurses have reflection of better knowledge and positive attitude into their practices largely. Moreover, the practices among the nurses were significantly associated among gender of the nurses, marital status, special course attended and previously any physical restraint training was done. All of the scores had shown weak positive correlation with each other.

Keywords: Knowledge, Attitude, Practices, Psychiatric Nurses, Physical Restraints.

INTRODUCTION

Physical restraint as it is used to limit freedom of movements or normal access to ones' bodies via any manual method or physical or mechanical device, material or equipment attached to or near their body which the patients cannot remove easily (Gallinagh, Stevin, & McCormack, 2002). Physical restraint has many types like ankle or wrist ties, racquetball gloves, table along with a chaise and chest vest. Bed rails are also type of restraint but not considered useful. These restraints help controlling patients' unexpected behavior and their safety is guaranteed (Suliman, Aloush, & Al-Awamreh, 2017).

The percentage of using physical restraint among units of acute care ranges from 7-87% showing these are common in clinical settings while among other types of settings like nursing homes the proportion was 24.7%. These are also practiced widely among hospital settings where prevention is desired in relation to patient safety from accidentally removing the worn medical devices. Patients' safety is the primary objective of the protection incurred through physical restraints. Physical restraint could result in both negative psychosocial and physical consequences (Azizpour, Moosazada, & M. & Esmaeili, 2017; Scheepmans, Dierckx de Casterlé, Paquay, Van Gansbeke, & Milisen, 2017).

Generally, among delirious, agitated patients or those patients who had undergone life-threatening treatment, these restraints must be utilized properly. Restraint process is considered incomplete if a patient manager that is nurses does not involved playing their part (Rose et al., 2016). Suen et al. studied that knowledge among 'nurses' about restraint in addition to underlying attitude about the use of physical restraint should be recognized because practices got affected directly by both knowledge and their attitudes (L. K. Suen et al., 2006). Nurses knowledge, attitudes as well as practices about their usage have been interviewed among nursing homes, intensive care units and psychiatric settings by many studies with different

questionnaires (Eskandari, Abdullah, Zainal, & Wong, 2017; Gürdoğan, Ugur, Kinici, & Aksoy, 2016; L. K. Suen et al., 2006).

Eskandari et al. found that respondent intention, their knowledge along with attitudes were significantly associated with practicing physical restraints (Eskandari, Abdullah, Zainal, & Wong, 2017). These findings are similar to those given by Gelkopf et al. in psychiatric setting the reaction of emotions among nurses' towards the procedures of restraints was primarily negative (Gelkopf et al., 2009). The findings in a study conducted by Azab & Negm showed difference of opinion, claiming that the practices among nurses towards usage of physical restraint were significantly correlated to nurses' knowledge as well as attitudes and clinical experience duration with their qualifications also greatly affect it (Azab & Negm, 2013). Literature has described importance of acquiring knowledge of physical restraints and developing positive attitude to practice these restraints properly.

This study was conducted among psychiatric nurses of Punjab Institute of Mental Health, Lahore. The study was first of its kind as previously these restraints were analyzed using ICU nurses and as the psychiatric patients are critical with respect to their mental health so the usage of such restraints is useful in managing such patients.

Aim of the study: The aim of study was to find out the knowledge, attitude and practices of nurses towards use of physical restraints.

METHODS AND MATERIALS

The study design was descriptive cross sectional to conduct the study among psychiatric nurses working in Punjab Institute of Mental Health, Lahore during January 2020 to March 2020. The sample size of 150 was calculated using confidence interval (95%), error term (7%), knowledge proportion regarding restraints was taken as 78.1% (Gandhi et al., 2018). Nurses were enrolled by using non-probability convenient sampling technique.

Data Collection Instruments: After taking informed consent from nurses, the nurses were asked questions using the predesigned

questionnaire on levels of Knowledge, Attitudes and Practices of Staff regarding Physical Restraints. A structured demographics questionnaire was used to collect the data. The adapted questionnaire from Janelli 1999 consisted of three parts that is knowledge, attitudes and practices (Janelli, Scherer, & Kuhn, 1994). Researcher herself interviewed the nurses and recorded the data.

In the knowledge part, there are total 11 items; the score range of this part is from 0 to 11. The 2nd part of the questionnaire elicits nurses' attitudes including 12-item on four-point Likert scale; score ranges either from 12 or up to total 48 points. While the questionnaire third part is about practices and consisted of 14 items with score range from 14 to 42. Having higher score indicates a better level of their knowledge, positive attitudes and perfect practices about usage of physical restraints (Janelli, Scherer, & Kuhn, 1994)

Data Analysis: SPSS version 23.0. was used for data analysis. For all variables, frequency tables were generated. Central tendency were computed for continuous data. Independent t-test was used to find out association between mean scores of knowledge, attitude and practices towards physical restraints. Correlation was also applied to see relationship between the scores. Significant was set at p-value <0.05.

RESULTS

The 150 nurses were enrolled in the study by mean age of 27.86±3.55 year. The mean of experience (years) was 4.80±2.53 years. The mean standard deviation of the levels of knowledge, attitude & practice of physical restraints scale was 7.01±0.89, 35.04±3.62 and 36.26±1.54 among the respondents respectively. The correlation between knowledge score and attitude score was correlated weak positively (+0.146), between knowledge and practices score was weakly positive correlated (+0.038) and among attitude and practice score was weakly positively correlated too (+0.092). These correlations were statistically insignificant (p>0.05). Table 1 showed the socio-demographic and other characteristics of studied nurses.

Table 1. Socio Demographical Characteristics of staff Nurses

Variable	Frequency	Percentage
Age (Years) 27.86±3.55*	20-30	123
	31 – 40	27
Gender	Male	30
	Female	120
Marital Status	Single	110
	Married	40
Religion	Islam	139
	Christian	11
Nursing Education	Diploma	63
	Bachelors	28
	Post-graduation	59
Experience (Years) 4.80±2.53*	1-5	105
	>5	45
Special Course Attended	Yes	20
	No	130
Previous Training on Restraints	Yes	113
	No	37
Total	150	100

*Mean±SD

Table 2. Comparing Mean Scores of Nurses Knowledge regarding Physical Restraints with sociodemographic and other characteristics

Socio-Demographic & other Characteristics	Categories	Mean	SD	Ind. t test	p-value
Age (Years)	20-30	7	0.86	-.196	0.845
	31-40	7.04	1.02		
Gender	Male	6.73	0.907	-1.906	0.059
	Female	7.08	0.871		
Experience (Year)	1-5	7.03	0.86	0.461	0.645
	>5	6.96	0.93		
Marital Status	Single	7.05	0.88	1.098	0.274
	Married	6.88	0.91		
Special Course Attended	Yes	6.85	1.14	-0.849	0.398
	No	7.03	0.84		
Previous Training Acquired	Yes	7.04	0.89	0.907	0.366
	No	6.89	0.87		

Table 2 showed the mean comparison of knowledge among socio-demographic and other characteristics. The means were found to be statistically insignificant (p>0.05).

The table 3 showed the mean comparison of attitudes among socio-demographic and other characteristics. The means were found to be statistically insignificant (p>0.05).

Table 3. Comparing Mean Scores of Attitudes of Nurses regarding Physical Restraints with sociodemographic and other characteristics

Socio-Demographic & other Characteristics	Categories	Mean	SD	Ind. t test	p-value
Age (Years)	20-30	35.12	3.6	-0.590	0.556
	31-40	34.67	3.78		
Gender	Male	34.53	2.82	-1.019	0.312
	Female	35.17	3.80		
Experience (Year)	1-5	35.15	3.5	0.579	0.564
	>5	34.78	3.9		
Marital Status	Single	35.08	3.38	0.234	0.816
	Married	34.93	4.27		
Special Course Attended	Yes	34.80	2.4	-0.439	0.663
	No	35.08	3.78		
Previous Training Acquired	Yes	34.94	3.69	-0.601	0.549
	No	35.35	3.43		

The table 4 showed the mean comparison of practices among socio-demographic and other characteristics. The means were found to be statistically significant (p<0.05) in gender, marital status, special course attended and previous training acquired.

Table 4. Comparing Mean Scores of Nurses Practices regarding Physical Restraints with sociodemographic and other characteristics

Socio-Demographic & other Characteristics	Categories	Mean	SD	Ind. t test	p-value
Age (Years)	20-30	36.24	1.49	-0.273	0.786
	31-40	36.33	1.75		
Gender	Male	36.83	1.66	2.315	0.022*
	Female	36.12	1.48		
Experience (Year)	1-5	36.36	1.67	1.43	0.155
	>5	36.02	1.16		
Marital Status	Single	36.12	1.57	-2.001	0.049*
	Married	36.65	1.39		
Special Course Attended	Yes	36.95	1.61	2.181	0.031*
	No	36.15	1.51		
Previous Training Acquired	Yes	36.10	1.43	-2.294	0.023*
	No	36.76	1.75		

*Significant Value

DISCUSSION

The cross sectional study of its first kind conducted showed that nurses had better knowledge, positive attitudes and good practices in terms of physical restraints. The results from the study were consistent with a study by Hassan in which 55% nurses were males, less than 50% had recognized any alternative methods against these restraints; also, most of them lacked reasons for using them. Almost the nurses enrolled had moderate knowledge as well as attitude and the practicing levels (Hasan & Abulattif, 2019). The results were in contrast with study by Shaymaa Mahmoud showing that 67% were females and 40% had experience of less than 5 years (Mahmoud Ahmed, et al., 2019).

Almost 40% of the nurses had good knowledge of physical restraints while 67% were not practicing the proper physical restraints techniques and most of them (>75%) had negative attitude towards physical restraints (Mahmoud Ahmed, et al., 2019). In a study by Renuka Shankar study results demonstrated that statistically insignificant difference was found between nurses' gender, their educational levels and experience years (Sankar, 2017). Same contrasting results were shown by descriptive study done by Amal Sobhy Mahmoud (Mahmoud, 2017). The descriptive study carried out by Amal Ibrahim Khalil showed that 52.8% were males and the respondents had inadequate knowledge of usage physical restraints as well as attitude and had more urge to use them for their patients (Mahmoud, 2017).

The scores in our study had weak positive correlation with each other. A significant positive correlation was found between total scores of attitude as well as practices in a study by Renuka Shankar (Sankar, 2017). Same consistent results were shown by descriptive study done by Amal Sobhy Mahmoud (Mahmoud, 2017). The insignificant correlation was found among the nurses' knowledge, practice and attitudes in a study done by Amal Ibrahim Khalil (Khalil, Al Ghamdi, & Al Malki, 2017).

Study Limitations: The present study is carried out in one tertiary hospital. The data collection in the existing study was through a self-reported questionnaire; which is not supported with observations.

Recommendations

- ✓ Health care providers should try hard to lessen the use of physical restraints in psychiatric hospitals.
- ✓ Within psychiatric hospital, there is a dire need of training and continuing medical, nursing education for health care providers on different aspects of physical restraints like application of restraints, complications, side effects of restraints and process followed in the application of restraints.
- ✓ Specially authorized health care practitioners should do the recommendation for the application of restraints on patients.
- ✓ Monitor the patients carefully on whom restraint is applied.
- ✓ Clear hospital policies and guidelines should be provided to health care practitioners in order to guide and support in conditions where the use of physical restraints is inevitable.

CONCLUSION

Psychiatric nurses of the institute studied have better knowledge, nurses' show positive attitude regarding the use of physical restraints and nurses reveal their knowledge and attitudes against their practices largely. Furthermore, nurse managers can use the results of the present study to fill gaps in the knowledge of nurses, improvement of the protocols for apply of physical restraints and formation of supportive environments. Training programs and in service educational programs should be arranged for staff nurses.

Conflict of Interest: Nil

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