Original Article

Knowledge and Attitude on Atraumatic Care to Hospitalized Children among Nurses of a Tertiary Level Hospital in Eastern Nepal

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ABSTRACT

Background: The experience of hospitalization is usually distressing and even traumatic, especially for children. Being hospitalized and receiving care affects the child's response to their illness. Action aimed at solving children's problems by nurses must be based on atraumatic care principles. The objective of the study was to assess the knowledge and attitude of nurses regarding atraumatic care to hospitalized children.

Methods: A descriptive cross-sectional study was conducted among 106 nurses in the tertiary hospital in Eastern Nepal. All the nurses working in the study setting were recruited in the study. A pre-tested semi-structured questionnaire was used to collect the data from the respondents. Obtained data were analyzed in SPSS version 20 by using both descriptive and inferential statistics.

Results: The majority (68.70%) of respondents had adequate knowledge towards atraumatic care among hospitalized children. Similarly, more than half (52.80%) of the respondents showed favorable attitudes in the implementation of atraumatic care. The respondents' knowledge and attitude were not significantly associated with selected sociodemographic variables. However, there was a significant positive correlation between nurse's knowledge and attitude towards the implementation of atraumatic care.

Conclusion: Despite the finding that more than two third of the nurses had adequate knowledge of the implementation of atraumatic care, the favorable attitude towards its application among hospitalized children seems poor. Henceforth, with the finding that a positive correlation exists between knowledge and the attitude of nurses towards the implementation of atraumatic care, a favorable attitude of the nurses could be enhanced by increasing knowledge regarding implementation of atraumatic care.

Keywords: Atraumatic care, attitude, knowledge, nurses

INTRODUCTION

Hospitalization, in general, is a stressful experience for children causing a great deal of psychological distress which may cause changes in child's development and lasting consequences like anxiety that need to be identified and treated as early as possible.[1, 2, 3] The variables which can influence the extent of negative reaction should be investigated so that children and families can be benefited by alerting the nurses to those children who are most at risk and, as well, enhance the effectiveness of preparatory interventions.[4] Children differ in their capacities to manage the stress of hospitalization. The arrangements made for children before hospitalization has been demonstrated to be exceptionally successful in decreasing stress during admission.[5] A successful approach has been evidenced to support mental, physical, social, and emotional well-being as well as reduce hospital anxiety and the ability to adapt by art therapy and by coping and play in different ways.[6, 7, 8] Cautious and balanced array of pharmacological and

non-pharmacological procedures with specialized aptitudes, competence and interpersonal relations are required for painful interventions in pediatric patients and also there is need to remove the prevailing inconsistency between what nurses believe about pain assessment and management.[9, 10, 11]

Admission to the hospital means being separated from one's family and known surroundings, experiencing a change in daily routine, and going through a series of unpleasant experiences opposite to the need of the child's development. The nurses are constantly in touch with the child, providing care should focus on atraumatic care.[12] Modify child-oriented hospital environments like audiovisual with a portable digital versatile disc (DVD), wall hanging cartoons, cartoons-patterned pillowcases, vest with colorful cartoon characters, etc. can increase the fun, feeling safe and comfortable thus reducing the stress of hospitalization.[13,14,15] Hospitalized children when undergoing a traumatizing event, which if overlooked could psychologically harm and hamper their development which in turn increases the stress in parents and deteriorating their satisfaction with the health care services and atraumatic care is the one that minimizes those detrimental effects. [16, 17]

With a paucity of studies identifying nurse's level of knowledge and attitude towards the implementation of atraumatic care among hospitalized children in Nepal, this study aimed to identify the level of knowledge and attitude of nurses in the implementation of atraumatic care among hospitalized children in a tertiary level hospital in Eastern Nepal as well as to find the association between different variables considered under the study.

METHODS

This was a cross-sectional study carried out among nurses working in pediatric units and MCH wards of B.P. Koirala Institute of Health Sciences (BPKIHS), Dharan. The study was conducted during 5th January to 7th February 2020 in the pediatric unit and maternal and child health ward of B.P. Koirala Institute of Health Sciences (BPKIHS), Dharan. The study population consisted of all the nurses (both nurses and ANMs) working in pediatric units (pediatric ward I, pediatric ward II, pediatric emergency, nursery, neonatal intensive care unit, neonatal ward) and maternal and child health wards of BPKIHS. Consecutive sampling method was used to select a total 106 nurses that include PCL and above level nurses and ANMs who were available and given informed written consent to participate in the study during the data collection period. Ethical approval to conduct the study was obtained from the Institutional Review Committee (IRC) of B.P. Koirala Institute of Health Sciences, Dharan, Nepal (IRC Code number IRC/1558/019). A semi-structured questionnaire was used to collect the data. The questionnaire consisted of three parts. The first part assessed socio-demographic profile of the respondents. The second part of the questionnaire consisted of 20 multiple choice questions, assessing the knowledge of nurses regarding atraumatic care. The score was assigned as 1 for each correct response, with an overall score ranging from 0 to 20, classified into two categories, the score of more than 14 was considered as adequate knowledge and less than 14 was considered as inadequate knowledge [17]. Several other similar studies with slight modifications were considered for this classification. The third part of the questionnaire comprised of twenty items and was used to assess the attitude of nurses towards the implementation of giving atraumatic care among hospitalized children. It covers 20 (12 positive and 8 negative) statements, arranged with a Likert scale of 1-5, with the options of Strongly agree (SA), Agree (A), Neutral (N), Disagrees (D), and Strongly disagree (SD). Following marks were assigned for positive statements as SA=5, A=4, N=3, D=2, and SD=1, and a reverse marking approach was applied for negative statements. The total score was the sum of the scores of the items i.e. 100 and was classified into favorable and unfavorable. A cut-off score with a theoretical mean of 75 was considered and a score of at least 75 was marked as a favorable attitude while less than 75 was considered an unfavorable attitude.[27] The questionnaire was pretested among 10 nurses and the analysis of the pretest data indicated that both parts of the questionnaire (knowledge and attitude) be reliable with an acceptable value of Cronbach alpha 0.80 and 0.92 respectively.

Permission for data collection was obtained from the head of the department of pediatric and adolescent medicine and the head of nursing of BPKIHS. Data were collected by the principal investigator herself through distributing the questionnaire. The purpose

of data collection was explained first to respondents to increase awareness about the study. In addition, participants were informed that they have the full right to refuse to participate in the study. They were informed regarding their voluntary participation in the study. Informed written consent was obtained from each participant before starting the study. They were also ensured about maintaining the confidentiality of the information they provided and the information collected was used only for the research purpose.

Data were entered in Microsoft Excel 2010 and were imported to the SPSS -20 version for the analysis. Descriptive statistics was used to describe the socio-demographic variables. Then, Chi-square and Fisher exact test were used to analyze the association of the level of knowledge and attitude with age, education level, designation, currently working clinical area, total nursing experiences after completion of the study, duration of work in the pediatric unit, and maternal and child health ward (MCH), and history of training received regarding atraumatic care.

RESULTS

Demographic characteristics are represented in (Table 1). Of the 106 respondents; more than half (51.90%) was more than twenty-five years age group. There were (72.60%) of respondents with educational qualifications below the bachelor's level. Furthermore, the maximum respondents (82.10%) were staff nurse. More than half (55.70%) of the respondents were from pediatric and MCH wards. More than half (54.70%) had less than five years' experience in a hospital after completion of their study and more than half (51.90%) of the respondents had served at the pediatric unit and MCH ward for less than three years. Only 25.50% had undertaken training on atraumatic care.

The findings showed that about two-third (68.90%) of the respondents had adequate knowledge, and about one-third (31.10%) had inadequate knowledge (Table 2). Similarly, more than half (52.80%) had a favorable attitude, and the remaining, 47.20% had unfavorable attitude towards implementing atraumatic care.

The level of knowledge regarding atraumatic care was not significantly associated with age, education level, designation, currently working clinical area, total nursing experiences, duration of work, and training on atraumatic care ($p>0.05$)(Table 3).

The level of attitude towards atraumatic care was not significantly associated with age, education level, designation, currently working clinical area, total nursing experiences after completion of the study, duration of work in the pediatric unit and maternal and child health ward, and history of training received regarding atraumatic care ($p>0.05$) (Table 4).

Table 1: Sociodemographic Characteristics of Respondents (n=106)

Variables	Number	Percentage
Age		
≤25 years	51	48.1
>25 years	55	51.9
Education level		
ANM	6	5.7
PCL	71	67.0
Bachelor and above	29	27.3
Designation		
ANM	7	6.6
Staff Nurse	87	82.1
Senior staff nurse and nursing officer	12	11.3
Currently working clinical area		
Pediatric ICU and pediatric ER	47	44.3
Pediatric and MCH ward	59	55.7
Total nursing experiences after completion of study		
<5 years	58	54.7
≥5 years	48	45.3
Duration of work in the pediatric unit and MCH ward		
<3 years	51	48.1
≥3 years	55	51.9
History of training received on atraumatic care		
No	79	74.5
Yes	27	25.5

Table 2: Respondents' Level of Knowledge and Attitude towards Atraumatic care (n = 106)

Variables	Number (%)	Mean ± SD
Knowledge level		
Adequate	73 (68.9)	14.90 ± 3.90
Inadequate	33 (31.1)	
Attitude level		
Favorable	56 (52.8)	74.74 ± 7.5
Unfavorable	50 (47.2)	

Table 3: Association of Respondents' Knowledge with Socio-demographic Variables (n = 106)

Variable	Knowledge		Chi-square value	p-value
	Adequate No. (%)	Inadequate No. (%)		
Age				
≤25 years	33 (64.7)	18 (35.3)	0.794	0.373*
>25 years	40 (72.7)	15 (27.3)		
Education level				
ANM and PCL	51 (66.2)	26 (33.8)	0.911	0.340*
Bachelor and above	22 (75.9)	7 (24.1)		
Designation				
Staff nurse and ANM	62 (66.0)	32 (34.0)	3.281	0.099**
Senior staff nurse and nursing officer	11 (91.8)	1 (8.3)		
Currently working area				
Pediatric ICU and pediatric ER	36 (76.6)	11 (23.4)	2.352	0.125*
Pediatric and MCH ward	37 (62.7)	22 (37.3)		
Total nursing experiences				
<5 years	38 (65.5)	20 (34.5)	0.671	0.413*
≥5 years	35 (73.0)	13 (27.0)		
Duration of work in pediatric unit and MCH ward				
< 3 years	33 (64.7)	18 (35.3)	0.794	0.373*
≥3 years	40 (72.7)	15 (27.3)		
Training received on atraumatic care				
Yes	21 (77.8)	6 (22.2)	1.341	0.247*
No	52 (65.8)	27 (34.2)		

* Pearson Chi-square test, ** Fisher's exact test

Table 4: Association of Respondents' Attitudes with Socio-demographic Variables (n = 106)

Variable	Attitude		Chi-square value	p-value
	Favorable No. (%)	Unfavorable No. (%)		
Age				
≤25 years	26 (51.0)	25 (49.0)	0.135	0.713*
>25 years	30 (54.6)	25 (45.4)		
Education level				
ANM and PCL	42 (54.5)	35 (45.5)	0.332	0.564*
Bachelor and above	14 (48.3)	15 (51.7)		
Designation				
Staff nurse and ANM	47 (50.0)	47 (50.0)	2.669	0.131**
Senior staff nurse and nursing officer	9 (75.0)	3 (25.0)		
Currently working area				
Pediatric ICU and pediatric ER	29 (61.7)	18 (38.3)	2.667	0.102*
Pediatric and MCH ward	27 (45.8)	32 (54.2)		
Total nursing experiences				
<5 years	29 (50.0)	29 (50.0)	0.412	0.521*
≥5 years	27 (56.3)	21 (43.8)		
Duration of work in pediatric unit and MCH ward				
< 3 years	23 (45.1)	28 (54.9)	2.358	0.125*
≥3 years	33 (60.0)	22 (40.0)		
Training received on atraumatic care				
Yes	39 (49.4)	40 (50.6)	1.493	0.222*
No	17 (63.0)	10 (37.0)		

* Pearson Chi-square test, ** Fisher's exact test

DISCUSSION

The overall findings of the study revealed that 68.90% of respondents have adequate knowledge regarding the implementation of atraumatic care. Similarly, 52.8% of respondents were found to have a favorable attitude towards the implementation of atraumatic care.

The current study revealed that around two third of the respondents had adequate knowledge regarding the implementation of atraumatic care which is consistent with the similar study by Rahmah who found that 67.7% (n=31) of the respondents had enough knowledge,[19] Meanwhile, in a similar study, Mediani et al. found that 40% (n=72) of respondents had good knowledge of atraumatic care [17] The study by Surastiningsih found that 57% (n=107) of respondents had poor knowledge about atraumatic care. [18] In another study by Pantulu showed almost 1/3rd (n=29) of the respondents had a good knowledge regarding atraumatic care [20]. However, due to insufficiencies in knowledge regarding atraumatic care, physical and psychological distress in children remains inadequately managed, which leads to unnecessary suffering in the vulnerable population.

The current study revealed that around 52.8 % of the respondents had a favorable attitude towards the implementation of atraumatic care. Meanwhile, in a similar study carried out in a general hospital by Mediani et al. showed that the majority 89% (n=72) of the respondents showed supportive attitude towards the implementation of atraumatic care which is higher than the current study.[17] Consistent with Mediani et al., the study by Dianto in similar settings also showed higher prevalence (87.1%, n=31) of supportive attitude towards implementation of traumatic care with respect to the current study.[21]

These differences in the level knowledge and attitude in similar settings may be due to several factors like syllabus incorporated during the course of the study and trainings provided or not during the professional life. Besides, the methods used to classify the level of knowledge and attitude, the difference in sample size, different instruments used and the difference in the outcome rating they used in different studies also could vary the results obtained.

This study showed that higher proportion of respondents belonging to above 25 years age group had adequate knowledge regarding the implementation of atraumatic care as compared to respondents with younger age. In the studies by Hatcher et.al and Fitzgerald et.al have mentioned that with increasing age, a person will have a longer duration of nursing experience, knowledgeable and also have physical and personality maturity that is closely related to decision making [22, 23]. Previous research by Apriani et al. found that a low education level had inadequate knowledge on atraumatic care, which ultimately affects the quality of service given by a nurse [23]. Unlike the knowledge level, the attitude was not found to be favorable in the respondents with higher education levels. Nurses working in the critical wards, which include pediatric intensive care unit and pediatric emergency, a less number of participants had inadequate knowledge and unfavorable attitude towards the implementation of atraumatic care as compared to the nurses working in general wards, which includes pediatric and MCH wards. In a study by Bagherian et al. within the critical care environment, various factors such as patient's critical condition, high technology, a mix of skills, and medical professions influence the potential for caring, which are different from other nursing environments.[24]

When viewed from work experiences, the majority of respondents had adequate knowledge and favorable attitudes about atraumatic care, who has worked less than five years after completion of their study, which is supported with the study by Surastiningsih. [18] A similar study by Mediani et al. showed that over half had experience of working in the hospital for more than ten years [17].Consistent with earlier literature, by Pantulu, knowledge on atraumatic care was seen highest in the nurses having experiences of less than five years.[20] Meanwhile, in the study by Apriani et al. revealed that nurse work experience also influences the implementation of atraumatic care [23]. One of the facts is that the nurses who have just graduated have new knowledge to apply it in given nursing care.[25] Higher proportion of respondents who had worked in child care wards for more than three years had adequate knowledge and attitude on implementing atraumatic care. This is consistent with the findings of Dianto et.al who found that the higher the experience, more the knowledge they gain and better the attitude of nurses towards themselves, patient rights, patient needs and ability to interpret certain information and perform required nursing procedures. [21]

To be optimal in providing atraumatic care to the child a nurse should have training regarding the implementation of atraumatic care. However, few respondents were found to obtain training on atraumatic care. This percentage is negligible in a study by Mediani [17]. Surastiningsih showed that a greater proportion of participants who had no history of training or seminar in atraumatic care had less knowledge. [18] In contrast, Ulfa et al. found a majority of respondents had gained training experiences on atraumatic care that had lowered the stress level of parents.[16]

A highly significant positive correlation was found between the knowledge and attitude scores of the respondents regarding atraumatic care and their attitudes. Similarly, the study done by Fiktoria showed a moderate correlation between nurse's knowledge and attitude regarding the application of atraumatic care [26]. The higher the knowledge more favorable is the attitude regarding the implementation of atraumatic care.

CONCLUSIONS

Despite the nurses had adequate knowledge of the implementation of atraumatic care, the favorable attitude towards its application among hospitalized children was lesser. Henceforth, a favorable attitude of the nurses should be enhanced by increasing knowledge of implementation of atraumatic care among them.

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