Original Research Article

Factors Related to Missed Nursing Care among Nurses in NICU at Selected Hospitals in Bangladesh

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ABSTRACT

Objective: To describe the factors related to missed nursing care among nurses in NICU at selected hospitals in Bangladesh.

Methods: A descriptive correlational study was conducted among 110 nurses in NICU at three tertiary level hospitals in Dhaka city. Convenient sampling technique was used to recruit the eligible sample of this study. A self-administered structured questionnaire was used for data collection. Descriptive and inferential statistics including frequency, percentage, mean, SD, t-test, ANOVA and Pearson correlation were used to analyze the data.

Result: The total mean score of missed nursing care was 35.65 (SD=9.01). The mean age of nurses was 32.15 (SD=6.63). There were statistically significant relationship between missed nursing care and number of baby care (F=4.254, p=.01); satisfaction in current position (F=3.775, p=.02) and satisfaction of teamwork on this unit (F= 8.588, p=.00). There was a statistically significant positive co-relationship found between human resource factors and missed nursing care (r= .193, p= .04) and in between communication factor and missed nursing care (r = .197, p = .039).

Conclusion: The study findings concluded that missed nursing care was associated with human resources factors and communication factors. So the nursing managers need to manage competent and sufficient nursing staff to satisfy the care demands. As well as to strengthen effective communication between nursing professionals and the rest of the clinical staff involved in care.

Keywords: Missed Nursing Care, Nurse, NICU

INTRODUCTION

Missed Nursing Care is defined as the absence of any standard, required nursing care or significantly delayed attention by caregivers[1]. It is also known as implicitly rationed care that is left unperformed and therefore viewed as unmet patient needs and unfinished or inadequate care for patients[1].Missed nursing care also refers to a lack of effective nursing care in Neonatal Intensive Care Units (NICUs)[2]. Missed nursing care is a worldwide concern for nurses and nurse managers[3]. Globally the prevalence of missed nursing care rate is 55% to 98% and leaves vulnerable patients without educational, emotional and psychological needs[4]. In the United States 36% of NICU nurses forget one or more care activities at the end of the shift and most common missed care includes providing patient comfort, counseling, and

parental education[5]. In Iran 72.1%, Swedish hospitals 74%, Ethiopia 74.6%, and Southern Nigeria 83.9% of the nurses reported that they missed at least one nursing care item on their last shift[6, 7, 8, 9].

Nurses in NICU most frequently missed to provide oral care for ventilated infants, educate and engage parents in baby care, involve parents with oral feedings, hand hygiene, safety, physical assessment and administration of medication[10]. Proper communication with parents, instruction on turning and repositioning infants were also missing, as found in several newborn units[11]. Parental support and teaching and infant comfort care were missed more frequently in neonatal units[12]. Missed nursing care has been linked to negative patient outcomes, and attributed to a variety of factors[3].

These factors includes hospital resources, the working environment, nurse-patient ratios, and the number of hours a nurses works per shift[13]. The factors that may contribute to missed nursing care also involve human resources, material resources, and communication[14]. Blackman et al. found eight variables: availability of resources, equipment and medication, workload predictability, workload intensity in terms of patient allocation, timing of the shift, intent to stay in the job, satisfaction with the current job, and communication issues have direct influence on missed nursing care[15]. The most common factors of NICU include frequent interruption, urgent patient situation and unexpected rise in patient volume and acuity of the unit[10].

Missed nursing care can lead to adverse outcomes for patients, with significant harm[3]. It affects the quality of care and considers a medical malpractice of many countries' health systems[9]. Missed nursing care is increasing the length of hospital stay, reducing patient satisfaction and safety, lowering a hospital's credibility, causing less than expected recovery and medication errors[16, 17]. Missed nursing care also increases the incidence of infections, prolonging patient recovery and thus raises health care costs[14].

The purpose of this study was to conduct a descriptive correlational study to describe the missed nursing care and factors related to missed nursing care among nurses in NICU at selected hospitals in Bangladesh. The specific aims of this study were: 1. Describe the socio-demographic characteristics among nurses in NICU. 2. Describe the factors related to missed nursing care among nurses in NICU. 3. Assess the missed nursing care among nurses in NICU. 4. Examine the relationship between socio-demographic characteristic, factors related to missed nursing care and missed nursing care among nurses in NICU.

METHODS
Study Design
A descriptive correlational study design was used to describe the missed nursing care and factors related to missed nursing care among nurses in NICU at selected hospitals in Bangladesh. Study was conducted from July 2021 to June 2022.

Study Participants
The study population was nurses in NICU at tertiary level hospitals in Bangladesh. The sample size was 110 NICU nurses that were estimated by using G power analysis. Statistical parameter was set as follows $\alpha=0.05$ an expected power 0.80 (1-β) and medium effect size $\Upsilon=0.30$. The calculated sample size was 82 and considering a 20% attrition rate, the total sample size was 110. Convenient sampling technique was used to recruit the eligible samples of this study. The study setting was three hospitals namely the Dhaka Medical College Hospital (DMCH); Sir Salimullah Medical College and Mitford Hospital (SSMCMH) Shaheed Suhrawardy Medical College and Hospital (ShSMCH) in Dhaka City.

Instruments
A self-administered structured "Missed Nursing Care Survey Questionnaire'' was used for data collection. The questionnaire

consists of three parts. Part A: Socio-Demographic Characteristic; Part B: Factors related to Missed Nursing Care; and Part C: Missed Nursing Care.

Part A: Socio-Demographic Characteristic: This part consists of 11 items.

Part B: Factors related to Missed Nursing Care: This part consists of 18 items divided into three categories such as: human resources factors (8 items); material resources factors (4 items) and communication factors (6 items). The respondents were asked to answer the questions with 4 points on Likert scale which was range from 1 to 4.

Part C: Missed Nursing Care: This part consists of 21 items. The respondents were asked to answer the questions on a 5-point Likert scale ranged from 1 to 5.

The content validity of the instrument was checked by three experts of National Institute of Advanced Nursing Education and Research (NIANER). The original instruments were developed in English language then translated into Bengali language, following bilingual translation technique to maintain consistency. The reliability of the instrument has been tested by using Cronbach's alpha co-efficient methods. The reliability score was 0.84.

Data Collection Methods
Ethical approval and clearance of the study obtained from the Institutional Review Board (IRB) of the National Institute of Advanced Nursing Education and Research (NIANER). Data collection permission was obtained from the Director of NIANER, Directors and Nursing Superintendents of the three selected hospitals. Then, the study objectives and data collection procedure were explained to the participants and received the written informed consent.

Data Analysis
The data were entered into a data sheet with the help of computer software (SPSS version 20). Then the data were analyzed by using both descriptive and inferential statistics. Descriptive statistics' frequency, percentage, mean and standard deviation were used to measure the demographic characteristics. Inferential statistics t-test, ANOVA and Pearson correlation were used to examine the relationship.

RESULTS
Socio-Demographic Characteristics among Nurses in NICU
Table 1 shows the socio-demographic characteristic of the nurses. Among the 110 nurses the mean age was 32.15 (SD=6.63) years. All the nurses (100%) were female. Approximately two thirds (71.9%) of nurses completed diploma in nursing, 23.6% nurses completed B. Sc in nursing and only 4.5% nurses completed a master degree. The mean of working experience as a nurse experience was 8.81 (SD=6.28) years. The mean of working experience in NICU was 4.22 (SD=4.13) years. Most of the (76.4%) nurses usually work in the day shift. The mean of baby care on each shift per nurses were 7.39 (SD=2.89). Only 5.5% nurses were mildly satisfied, 53.6% nurses were moderately satisfied and 40.9 nurses were highly satisfied with their current position. Very few (9.1%) nurses were mildly satisfied, 42.7% nurses were moderately satisfied and 48.2% nurses were highly satisfied of teamwork on this unit.

Factors related to Missed Nursing Care among Nurses in NICU
Table 2 shows the description of factors related to missed nursing care in terms of three domains including: human resource factors; material resource factors; and communication factors. The total mean score of factors related to Missed Nursing Care was 53.05 (SD=8.40) and the mean of mean was 2.94 (SD=.46) on a 4- point Likert scale.

In the domain of human resource factors, the mean was 2.92 (SD=.52). Where 79.1% nurses reported inadequate nursing staff was a significant reason. Approximately two-thirds (64.5%) of the nurses reported an urgent patient situation was a significant

reason. The majority (60.9%) of nurses reported that an unexpected rise in patient number was a significant reason.

In the domain of material resource factors, the mean was 3.07 (SD=.60). Where 40.0% nurses reported medication not available when needed was a significant reason. About 60.0% nurses reported supplies/ equipment are not functioning properly when needed was a significant reason.

In the domain of communication factors the mean was 2.89 (SD=.72). About half (47.3%) of nurses reported inadequate handover from previous shift or sending unit was a significant reason. Half (57.3%) of the nurses reported lack of back-up support from team members was a significant to moderate reason. Around 64.5% nurses reported communication gap with the medical officer was a significant to moderate reason. Around 44.5% nurses reported nursing assistant's did not communicate about care not provided was a significant reason.

Missed Nursing Care among Nurses in NICU

Table 3 shows the description of missed nursing care among nurses in NICU. The total mean score of missed nursing care was 35.65 (SD= 9.01) and the mean of mean was 1.69 (SD=.42) on a 5-point Likert scale. The mostly missed nursing care were baby repositioned at list once every 2 hours 70.9%, monitor intake output hourly or as per protocol 47.3%, full documentation of all necessary data 49.1%, oral care for ventilated babies provided as per protocol 60%, emotional support provided to parents /family 50.9%, infection control precaution followed per protocol 44.5%, performed baby assessment in every shift 50%, infection control precaution followed per protocol 44.5%, skin /wound care provided routinely 43.6%, safety check of bed side equipment once per shift 64.5%, focused reassessment according to baby condition 66.4%, attend interdisciplinary neonatal care conferences whenever held 64.5%.

Relationship between Socio-Demographic Characteristics and Missed Nursing Care among Nurses in NICU

Table 4 shows that there was a statistically significant relationship between number of baby care and missed nursing care (F=4.254, p=.01) among nurses in NICU, satisfaction in current position and missed nursing care (F=3.775, p=.02) among nurses in NICU, satisfaction of teamwork on this unit and missed nursing care (F= 8.588, p<.001) among nurses in NICU.

Relationship between Factors related to Missed Nursing Care and Missed Nursing Care among Nurses in NICU

Table 5 shows that there was a statistically significant positive correlation between human resource factors and missed nursing care (r=.193, p=.04), communication factor and missed nursing care (r=.197, p=.03).

Table 1. Distribution of Socio-Demographic Characteristics among Nurses in NICU (N=110)

Variables	Categories	n	%	M±SD
Age	< 30 years	47	42.7	32.15± 6.63
	30-40years	43	39.1	(Min 23-Max 53)
	>40 years	20	18.2	
Gender	Female	110	100	
Marital Status	Married	84	76.4	
	Unmarried	26	23.6	
Professional Education	Diploma in Nursing	79	71.9	
	B. Sc in Nursing	26	23.6	
	MPH/MSN	5	4.5	
Working Experience as a Nurse	< 5 years	43	39.1	
	5 years- 10 years	33	30.0	8.81± 6.28
	>10years	34	30.9	(Min 1-Max 25y)
Working Experience in NICU	< 5 years	89	80.9	4.22 ±4.13

	5 years- 10 years	11	10.0	(Min 1-Max 22)
	>10years	10	9.1	
Most working shift	Day	84	76.4	
	Evening	26	23.6	
Training in neonatal care	Yes	53	48.2	
	No	57	51.8	
On the Current shift, number of baby care	1-5	23	20.9	7.39 ±2.89
	6-10	74	67.3	(Min 3-Max 15)
	>10	13	11.8	
Satisfaction in current position	Mildly satisfied	6	5.5	
	Moderately satisfied	59	53.6	
	Highly satisfied	45	40.9	
Satisfaction of teamwork on this unit	Mildly satisfied	10	9.1	
	Moderately satisfied	47	42.7	
	Highly satisfied	53	48.2	

Table 2. Distribution of Factors related to Missed Nursing Care among Nurses in NICU (N= 110)

Items	Significant Reason	Moderate Reason	Minor Reason	Not a Reason	M±SD
	n (%)	n (%)	n (%)	n (%)	
Human Resource Factors:					**2.92±.52**
Inadequate Nursing Staff	87 (79.1)	17 (15.5)	6 (5.5)	-	3.74±.55
Urgent Patient Situation (e.g. baby's condition worsening)	71 (64.5)	29 (26.4)	9 (8.2)	1 (.9)	3.55±.68
Unexpected rise in patient number	67 (60.9)	37 (33.7)	3 (2.7)	3 (2.7)	3.53±.68
Heavy admission and discharge activity	53 (48.2)	47 (42.7)	6 (5.5)	4 (3.6)	3.53±.74
Lack of special training for NICU nurses	41 (37.3)	37 (33.6)	23 (20.9)	9 (8.2)	3.00±.95
Lack of supervision by nursing supervisor	18 (16.4)	33 (30.0)	36 (32.7)	23 (20.9)	2.42±.99
Lack of leadership ability of NICU nurses	17 (15.5)	11 (10.0)	21 (19.1)	61 (55.4)	1.85±1.12
Lack of competence of NICU nurses	18 (16.4)	18 (16.4)	13 (11.8)	61 (55.4)	1.94 ±1.17
Material Resource Factors: 3.07±.60					
Medication not available when needed	44 (40.0)	55 (50.0)	9 (8.2)	2 (1.8)	3.28±.69
Supplies/ equipment not available when needed	51 (46.4)	47 (42.7)	12 (10.9)	-	3.35±.67
Supplies/ equipment not functioning properly when needed	66 (60.0)	30 (27.3)	14 (12.7)	-	3.47±.71
Lack of familiarity with equipment/procedure/policy	20 (18.2)	25 (22.7)	20 (18.2)	45 (40.9)	2.18±1.15
Communication Factors:					**2.89±.72**
Imbalanced patient assignments	42 (38.2)	46 (41.8)	11 (10.0)	11 (10.0)	3.08±.94
Inadequate handover from previous shift or sending unit	52 (47.3)	41 (37.3)	5 (4.5)	12 (10.9)	3.21±.95
Lack of backup support from team members	21 (19.1)	42 (38.2)	30 (27.2)	17 (15.5)	2.61±.96
Communication gap with the medical officer / doctor	34 (30.9)	37 (33.6)	33 (30.0)	6 (5.5)	2.90±.90
Communication gap within the nursing team	21 (19.1)	31 (28.1)	41 (37.3)	17 (15.5)	2.51±.97

Nursing assistant did not communicate about care that was not provided	49 (44.6)	33 (30.0)	15 (13.6)	13 (11.8)	3.07±1.02
Mean of Factors					**2.94±.46**
Total Mean score of Factors					**53.05±8.40**

Table 3: Distribution of Missed Nursing Care among Nurses in NICU (N= 110)

Items	Overall Missed N %	Always missed n (%)	Frequently missed n (%)	Occasionally missed n (%)	Rarely missed n (%)	Never missed n (%)	M±SD
Baby repositioned at list once every 2 hours	78 (70.9)	1 (.9)	-	30 (27.3)	47 (42.7)	32 (29.1)	2.01 ±.807
Feeding offered when baby exhibit's cues of hunger	36 (32.2)	-	2 (1.8)	4 (3.6)	30 (27.3)	74 (67.3)	1.40 ±.652
Administration of Medicine within 30 minute of schedule time	18 (16.7)	1 (.9)	-	2 (1.8)	15 (13.6)	92 (83.7)	1.21 ±.560
Assess Medication effectiveness within 30-60 minutes of administration	43 (37.2)	2 (1.8)	-	12 (10.9)	27 (24.5)	69 (62.8)	1.54 ±.831
Vital signs assessed as ordered	20 (18.2)	-	1 (.9)	2 (1.8)	17 (15.5)	90 (81.8)	1.22 ±.514
Monitor intake output hourly or as per protocol	52 (47.3)	-	1 (.9)	7 (6.4)	44 (40.0)	58 (52.7)	1.55 ±.658
Full documentation of all necessary data	54 (49.1)	1 (.9)	-	15 (13.6)	38 (34.6)	56 (50.9)	1.65 ±.783
Oral care for ventilated babies provided as per protocol	66 (60)	3 (2.7)	12 (10.9)	35 (31.8)	16 (14.6)	44 (40.0)	2.22 ±1.168
Emotional support provided to parents /family	56 (50.9)	1 (.9)	2 (1.8)	25 (22.7)	28 (25.5)	54 (49.1)	1.80 ±.917
Maintain hand hygiene as per protocol	23 (20.9)	-	1 (.9)	5 (4.5)	17 (15.5)	87 (79.1)	1.27 ±.589
Performed baby assessment in every shift	55 (50)	-	-	11 (10.0)	44 (40.0)	55 (50.0)	1.60 ±.666
Care of central line/peripheral i/v site care as per protocol	27 (24.6)	1 (.9)	-	6 (5.5)	20 (18.2)	83 (75.4)	1.33 ±.665
Infection control precaution followed per protocol	49 (44.5)	1 (.9)	-	10 (9.1)	38 (34.5)	61 (55.5)	1.56 ±.736
Skin /wound care provided routinely	48 (43.6)	1 (.9)	2 (1.8)	18 (16.4)	27 (24.5)	62 (56.4)	1.66 ±.881
Parents included in baby's care	63 (57.2)	7 (6.4)	13 (11.8)	16 (14.5)	27 (24.5)	47 (42.8)	2.15 ±1.270
Provide developmentally supportive care (skin to skin care, kangaroo care, nesting)	30 (27.2)	-	3 (2.7)	5 (4.5)	22 (20.0)	80 (72.8)	1.37 ±.702
Parents prepared for discharge	32 (29.1)	-	-	11 (10.0)	21 (19.1)	78 (70.9)	1.39 ±.665
Parents educated about home management of illness including device	33 (30)		1 (.9)	14 (12.7)	18 (16.4)	77 (70.0)	1.45 ±.749

medication and general care of preterm infant	-					
Safety check of bed side equipment once per shift	71 (64.5)	1 (.9)	2 (1.8)	38 (34.5)	30 (27.3)	39 (35.5)	2.05 ±.927
Focused reassessment according to baby condition	73 (66.4)	1 (.9)	4 (3.6)	19 (17.3)	49 (44.6)	37 (33.6)	1.94 ±.860
Attend interdisciplinary neonatal care conferences whenever held	90 (81.8)	26 (23.6)	30 (27.3)	23 (20.9)	11 (10.0)	20 (18.2)	3.28 ±1.409

Mean of Missed Nursing Care	**1.697 ±.429**
Total mean of Missed Nursing Care	**35.65 ±9.010**

Table 4. Relationship between Socio-Demographic Characteristics and Missed Nursing Care among Nurses in NICU (N=110)

Variables	Categories	M±SD	r/t/F	p
Age	<30years	1.671±.438	.150	.861
	30-40years	1.718±.490		
	>40 years	1.714±.236		
Marital Status	Married	1.714±.442	.721	.472
	Unmarried	1.644±.385		
Professional Education	Diploma in Nursing	1.707±.394	.304	.738
	B. Sc in Nursing	1.696±.550		
	MPH/MSN	1.552±.244		
Working Experience as a Nurse	< 5 years	1.671±.363	.354	.703
	5 years- 10 years	1.750±.442		
	>10years	1.680±.495		
Working Experience in NICU	< 5 years	1.708±.458	.303	.739
	5 years- 10 years	1.601±.277		
	>10years	1.704±.281		
Most working shift	Day	1.729±.461		
	Evening	1.597±.288	1.376	.172
Training in neonatal care	Yes	1.650±.254	-1.117	.266
	No	1.741±.542		
On the Current shift number of baby care	1-5	1.538±.349	4.254	.017
	6-10	1.701±.428		
	>10	1.959±.453		
Satisfaction in current position	Mildly satisfied	2.007±.506	3.775	.026
	Moderately satisfied	1.752±.486		
	Highly satisfied	1.585±.292		
Satisfaction of teamwork on this unit	Mildly satisfied	2.195±.554	8.588	<.001
	Moderately satisfied	1.672±.460		
	Highly satisfied	1.626±.302		

Table 5. Relationship between Factors related to Missed Nursing Care and Missed Nursing Care among Nurses in NICU (N=110)

Variables	Human Resource r(p)	Material Resource r(p)	Communication r(p)	Missed Nursing Care r(p)
Human Resource	1			
Material Resource	.559 (.000)	1		
Communication	.293(.002)	.252(.008)	1	
Missed Nursing Care	.193(.043)	.152(.117)	.197 (.039)	1

DISCUSSIONS

The current study findings revealed that the mean age of nurses was 32.15 (SD=6.63) years. This finding is similar to previous study findings where nurses' mean age was 33.46 (SD=10.63) years[9]. This finding is dissimilar to the previous study findings where nurse's mean age was 28.5 (SD=4.7) years[18]. The present study found 100% nurses were female. Such 100% female nurses are found in previous study[18, 19, 20]. The possible reasons for the current study findings, in Bangladesh an overwhelming majority of nurses are female with only 10% seats for male nurses. In NICU where care is given to sick newborn and mothers are not usually allowed there. A female nurse, like a mother, is most suitable for taking care of the neonate. That's why most of the nurses in NICU were female.

The present study found that nurses' mean working experience was 8.81 (SD=6.28) years and mean working experience in NICU was 4.22 (SD=4.13) years. This result is closely similar to the findings of a previous study[18, 21]. The current study finding revealed that most of the nurses reported that they give nursing care to 6-10 babies in each shift and the mean of babies were 7.39 (SD=2.89). This finding is inconsistent with the findings of a previous study in South Korea where the mean of babies were 3.38 (SD=0.80)[18]. In one such study in the USA infant-nurse ratio was 2:1[21]. The reason for these findings in Bangladesh the number of nurses is fewer than in developed countries. So Bangladeshi nurses have to take charge of more babies than nurses in developed countries. The present study finding revealed that most of the nurses were satisfied with their current position and team work. These result are similar to the previous study[22].

The current study findings revealed that the total mean score of factors related to missed nursing care was 53.05 (SD=8.40). The mean of total mean was 2.94 (SD=.46). A related study in South Korea found the mean was 2.39 (SD=.79)[18]. According to the findings of this study the total mean score of missed nursing care was 35.65 (SD=9.01). The mean of total mean was 1.69 (SD=.42). Closely similar finding was found in the previous study where the mean was 1.82 (SD=.76)[18].

The current study findings revealed that there was a statistically significant relationship between number of baby care and missed nursing care (F= 4.254, p = .01). It stated that the nurses who take care of more baby they missed more nursing care than who take care of less baby. This finding is similar with the findings of previous study[23]. Where the nurses who take care more patients they did high missed nursing care than others who take care less patients. The present study findings showed statistically significant relation between satisfaction in current position and missed nursing care (F = 3.775, p=.02). It indicates that the nurses who felt less satisfied in their current position, they did higher missed nursing care and who were more satisfied, they committed lower missed nursing care. The reason for less satisfaction was greater workload in the unit. These findings are congruent with the findings of the study carried out earlier[3, 22]. There was also statistically significant relation between satisfaction of teamwork on this unit and missed nursing care (F = 8.588, p <.001) among nurses in NICU. It also indicates that the nurses who felt less satisfied of their teamwork, they did higher missed nursing care than others who felt more satisfied. This finding is inconsistent with the findings of a previous study conducted in Poland[22]. The most likely reason for less satisfaction of team work in NICU was communication gap between and among team members.

The current study findings revealed that there was a statistically significant positive correlation between human resource factors and missed nursing care (r =.193, p = .04). It indicates higher the lacks of human resource factors are responsible for higher missed nursing care. Significant human resource factors were including: inadequate nursing staff, urgent patient situation, unexpected rise in patient number, heavy admission and

discharge activity. These results are consistent with the findings of these studies[3, 24]. They described human resource factors are key aspect that is directly related to the result of patient care[3, 24]. The possible reason for this result inadequate nursing staff, urgent patient situation, unexpected rise in patient number, heavy admission and discharge there are the causes workload in the unit. Greater work load is associated with missed nursing care in NICU.

The present study findings showed there was another statistically significant positive correlation between communication factors and missed nursing care (r =.197, p= .03). It indicates that higher the communication gaps are responsible for higher missed nursing care. Significant communication factors including: imbalance patient assignment, inadequate handover from previous shift, communication gap with in the medical officer and nursing team. These findings are also consistent with the findings of these studies[3, 24]. The possible reason for this findings, when nurses do not get proper handover from previous shift, they are unaware about nursing care which were due as a result they missed that nursing care. As same as if there is communication gap with in the medical officer and nursing team and they are not communicate properly each other about patient care that may causes missed nursing care.

CONCLUSION

On the basis of these findings, it can be concluded that the study was a descriptive correlational study carried out July 2021 to June 2022. The study findings revealed that mostly missed nursing care were baby repositioned, full documentation of all necessary data, oral care for ventilated babies, emotional support provided to parents, performed baby assessment in every shift, parents included baby care, attend interdisciplinary neonatal care conference. Missed nursing care was associated with the number of baby care, satisfaction of nurses in current position, satisfaction of nurses in teamwork and as well as factors including human resources factors and communication factor.

RECOMMENDATIONS

Based on the findings of the study, the researcher has suggested some important recommendations.

- Let the study findings be disseminated to hospital administrators with the suggestion of designing effective strategies for reducing missed nursing care and improving the neonatal care in NICU.
- Nursing administrators should recruit an adequate number of efficient nurses aimed at improving nursing care in NICU.
- Hospital administrators should establish NICU in every medical college hospitals and increase the number of beds in hospitals having NICU to reduce the overload of patients.
- Hospital administrators also need to implement strategies for effective communication within the health care team involved with patients' care and arrange interdisciplinary neonatal care conferences to improve neonatal care.
- Nursing managers should pay attention to a balanced distribution of nurses and patients in order to avoid or reduce missed nursing care in their units.
- Further, an observational study is needed to assess missed nursing care and how to overcome factors related to missed nursing care among nurses in NICU.
- Another study is suggested for examining the relation between missed nursing care and quality of neonatal care.

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