Original Research Article

Association between nursing communication and missed nursing care by nurses at University Teaching and Referral hospital in Rwanda.

Abstract

Introduction: Omitting nursing care is a challenging concern in healthcare settings. This concept has not been addressed much, especially in the African context. This missing is related to any prescribed or administered activity by a nurse, omitted, delayed, or left undone. Focusing on identifying them and their associated factors will assist healthcare providers in improving the patient's outcomes. **Objective**: The aims of this study was to determine the levels, types and the communication factors that influence missed nursing Care activities by nurses at the University Teaching and Referral Hospital of Kigali in Rwanda. **Material and Methods**: This study was cross-sectional descriptive correlation design. The study used census method of sampling technique to obtain participants. The researcher used MISSCARE survey questionnaires for data collection. The data were analysedusing SPSS version 26.0. Frequencies, percentages, chi-square and multinomial logistic regression were computed to find relationships between independent and dependent variables at 95% confidential interval and significance level of 5%. The results were presented using tables, figures. **Results**: Two hundred and one nurses took part in the study, 56.7% were female and 46.3% were male. The majority were aged 31-40 years, 54.2% had Diploma, 42.3% had bachelor while 3.5% had master's degree, and 75.6% were married. The mean experience in nursing and in current unit were 13years and 7years respectively. The majority (46.73%)responded that missed nursing care was regarded as moderate while 29.65% perceived them as high across the assessed departments. The results also showed that replying to call alarms within 5 minutes (29.9%), joining interdisciplinary whenever held (25.4%), documentation of necessary information (24.9%), monitoring intake and output (21.9%) and patient health education (18.4%) were always being missed by nurses. Chi square test showed that all elements of communication were statistically significant factors associated with level of missed nursing care activities. **Discussion**: The finding revealed that the level of missed nursing care at the hospital as moderateand the level of missed nursing care was different across the hospital. The top five nursing activities that have always been missed were replying to call alarms within 5 minutes,joining interdisciplinary whenever held, documentation of necessary information, monitoring intake and output, and patient health education. The findings of the study showed that nursing communication was the main factor influencing missed nursing care. **Conclusions**: The study findings showed that level of missed nursing care was moderate and MNC were different across the hospital. It also indicated nursing communicationfactors were the most significant factors. The study also highlighted the top five missed nursing care that are perceived to be always missed. **Recommendation**: Ensure that efficient and effective communication among the nurses, medical staff and other stakeholders.

Keywords: missed care, missed nursing care, nursing communication, missed communication.

INTRODUCTION

Communication in health care is a tool that facilitates the smooth delivery of health care services therefore, the break or ineffective communication is problematic in health care set up primarily in nursing. Ineffective communication is among the factors leading to the omission of nursing activities (1). Mainly, efficient conversation involves engaging the patient as an active participant of the team providing healthcare, and it has made a change between adequate provided and omitted nursing care. This communication is categorized as mutual respect, the context of humane care, access to existing communication channels, mutual and universal compassion of the care needs and plan. Hence, restoring nursing care fundamentals, effective communication is essential to avoid errors of omission (2). The study of Labrague et al. in 2020, found that the patients and their families' complaints of verbal abuse by nurses from poor communication and lead tomissed nursing care (MNC)such as reassuring/ talking with patients and changing patients' positions(3). When the patient calls on, the nurse's unavailability is perceived as a significant reason for missed nursing care at 22.5%, and errors during the conversation with doctors were 21.1%. Therefore ensuring efficient communication promotes care continuity and avoids errors in health care setting(4). The overall nursing care missing varies depending on facility type (private or public), type of shift (day/night), severity of disease, and patient-nurse ratio. According to Gathara et al., for all 2016 babies observed in their study, overall nursing care activities completed were 60%(5). When evaluating the overall index on provided nursing care, the mean was 89.16, with variation across the nursing care activities assessed for missing (6). In the study conducted in 300 hospitals, data from nine countries, the mean percentage of missed nursing care was reported at 25.5%, this varied when activities were examined separately(7). A study conducted in 11 acute care hospitals with 3432 nurses and 980 nurse assistants found that the mean score of nursing care that was missed was 1.50 (SD: .18). The mean range was 1.07 to 2.59 (8). This was also analysed in the study of Ball, Murrells, Rafferty, et al., in 2014 found that the mean of missed activities was 7.8(9). Additionally, the study of Diab & Ebrahim in 2019 findings showed that the majority of studied nurses had moderate levels of missed nursing care(10).

However, MCN in nursing literature was not evident until it was established by Kalischet al. After studying missed nursing care repeatedly in different hospital wards and their reasons for missing(11). The researcher clearly explained this concept of MNC in her series of studies with her colleagues. When studied thoroughly, missing nursing care becomes the centre point for quality improvement in any given healthcare system. The MNC in hospitals has various reasons and results in variability of the quality of nursing care. Certain studies describe this missing care as omitted nursing care resulting from inadequate staffing, absenteeism, length of the shifts and patient numbers, and acuity (12). MNC in the USA hospitals occurs at different levels, and in hospitals where missing the required nursing care was high, patients had poor hospital experience (13). Additionally, the study conducted in Europe with 400000 patients and 26000

nursesreported that any increase of 10% in reporting MNC by nurses was associated with 16% inpatient mortality(14).Furthermore, according to Kalisch, Tschannen, Lee, et al., the repeatedly omitted nursing care was to ambulate the patient at eighty-four percent, evaluate the efficiency of medication at eighty-three percent, mouth care, and change the patient's position at eighty-two percent, respectively(15). Patient education and punctuality of "pro re nata," PRN medication at 80%, respectively. Less frequently, MNC was patient reassessment after every shift at 17%, blood sugar monitoring as ordered at 26%, performing hand hygiene regularly at 30%, and focused assessment at 36%. The reported influencing factors for this Missing Nursing Care were inadequate staffing (85%), ineffective communication (38%), and inadequate material resources (56%)(12). In addition to the above, attendance at care conference (66%) was missing for the same reasons as the above. Though there are studies on quality of care in most African countries, this quality report has intractable low health indices (16). Furthermore, studying various factors that affect healthcare services' quality, MNC is not clearly articulated (17). A study conducted in Ethiopia, which included 422 nurses and midwives, also revealed that 74.6% of respondents missed at least one nursing care. Communication accounted for 85.3% of the reasons and it was associated with missed nursing (activities) care (18). When the researchers studied how the patient is affected in the health care setup, MNC is left behind in developing countries, as proven by limited literature on the same concept. For example, the study conducted in South Africa on factors associated with quality patient care in paediatric units, failed to correlate these factors with the missing aspect. However, the study mentioned labour, material resources and funds, and lack of infrastructure to contribute to patients' poor outcomes (19). There is limited knowledge and resources published regarding MNC; hence, further extensive studies and multiplication of this concept in Africa are needed.

Study design

The current study was cross-sectional, descriptive correlational design. It was conducted from October to December 2021.

Study setting

This research will be at the University Teaching and Referral Hospital of Kigali in Rwanda, also known on its French name as "*Centre Hospitalier Universitaire de Kigali"* (CHUK). It is offering healthcare services through the following units: accident and emergency, general

surgery, internal medicine, dermatology, paediatrics, obstetrics & gynaecology, Ear Nose and Throat (ENT), dental, ophthalmology, orthopaedics,

Objectives of the study

1. To determine the level of missed nursing care activities by nurses at the hospital.

2. To determine the types of missed nursing care activities by nurses at hospital.

3. To find out the association between nursing communication and level of missed nursing care by nurses at the hospital.

Sampling procedures and techniques

The researcher used census, also known as complete coverage to get the study sample. Every nurse in the target population who met the inclusion criteria was enrolled in the study.

Inclusion criteria

-Nurses who were six months and above working experience in the clinical setting in the selected hospital units.

-Nurses providing direct care to inpatients in selected hospital units.

Exclusion criteria

-Nurses in administrative positions

-Nurses who were on their leave in the period of data collection.

Sampling procedure and sample population

The study used total population sampling or complete coverage, a 95% confidence interval and 5% ($P \leq 0.05$) significance level. The figure below shows the progression of study participants, from 257 nurses who were assessed for eligibility, 231 met the inclusion criteria. 201 nurses provided the final data for analysis. 30 nurses were excluded due to variety of reasons such refusing to participate and failing to return the questionnaire despite of intensive follow up. The response rate was 87.01% (201 nurses). Nurses who participated in this study were from Accident & Emergency, Surgical wards, medical wards, and intensive care units at University Teaching and Referral hospital (CHUK) of Kigali.

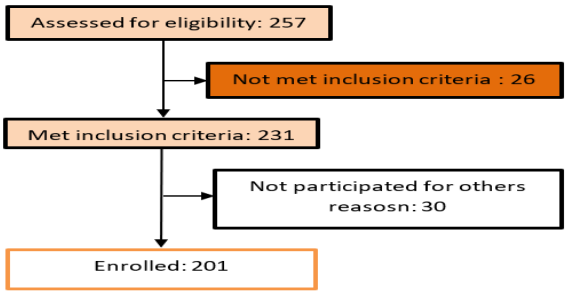

Figure 1: Sample population

Material and methods

The studyadaptedone from Kalisch et al.: MISSCARE survey to gather the data from the sample population. Kalisch & Williams in 2009 (20) developed the MISSCARE survey. The MISSCARE survey was comprised of three parts; the first section was for nurses' characteristics (department where nurses work, age, gender, marital status, education, and job experience. Section two had 24 elements regarding missed nursing care grouped into nine (9) areas: 1) assessment with five (5) subjects, 2) drug administration with four(4) subjects, 3) patient health education with three (3) elements 4) patient feeding with three (3) items, 5) hygiene with three elements, 6) patient mobility with two (2) subjects, 7) responding to patient inquiries with two(2) elements 8) attending interdisciplinary meetings one (1) element and 9) documenting all necessary data with one(1) element.The meaning of rating was on 5 points Likert scales as 1= never missed, 25% of the time=rarely missed, and 50% of the time= sometimes missed, 75% of the time= frequently missed and 5= always missed (21). Therefore 1 and 2 was regarded as nursing care provided, three as neutral, and 4,5 will be considered as nursing care missed (10,22). Section three of the MISSCARE survey had communication with seven elements, The rating was on three points Likert scale as (3) significant factors or reasons, (2) moderate reasons, and (1) not a factor, then means and percent scores will be computed (10). The items of the questionnaire were rearranged to suit the current study.

Methods of data collection

During data collection, the researcher utilized a self-report method of data collection using a self-administered MISSCARE survey. First, the departments were visited in different shifts to maximize accessibility to participants; then, the researcher invited the participants and explained the study's objectives. After this explanation, each participant signed a consent for participation.

Then researcher distributed envelope containing MISSCARE survey with the instructions on how to filling it.

Data analysis techniques and procedures

After data collection, the questionnaires were and were entered and analysed using SPSS version 26.0. The analysis was comprised of descriptive and inferential statistics. Descriptive statistics were frequency distributions, mean, and mode and percentages. Inferential statistics included Pearson chi-square test for independence ($\mathbf{X^2}$) to determine any existing association between (categorical variables) independent and dependent variables. Moreover, multinomial logistic regression was computed to describe and explain the effects of independent variables on the dependent variable at the significance level of ($P \leq 0.05$). The results of the analysis were presented using frequency tables, bar charts, and pie charts.

Ethical considerations

Before starting data harvesting, the investigator sought clearance from the Institution Ethical Review board at Mount Kenya University (MKU-IERB). The researcher submitted this copy from MKU ethical clearance to CHUK -ethical review committees and was given the permission to access the participants in their setting. Before initiating data collection, the researcher also sought participants' consent to ensure their autonomy and moral values, including voluntarily, dignity, psychosocial and physical integrity, and confidentiality, privacy during and after participation. There was no further follow-up or any other intervention for nurses who did not consent for participation.

Results

This study took place at the University Teaching and Referral (CHUK) Hospital of Kigali. The aim of the study was to find out the level, type and association between nursingcommunications and missed nursing care activities at the hospital. Two hundred and one (201) nurses working in different departments at the hospital took part in this study in response to various metric variables being examined. The nurses who took part in this study work in different hospital ward departments with majority of them (39.8%, 80) working in the surgical ward, 24.9% (50) of them work in the medical ward whereas 21.9% (44) work in accident and emergency ward. A

relatively small percentage of nurses 13.4% (27) work in intensive care unit as it can be seen in figure 2.

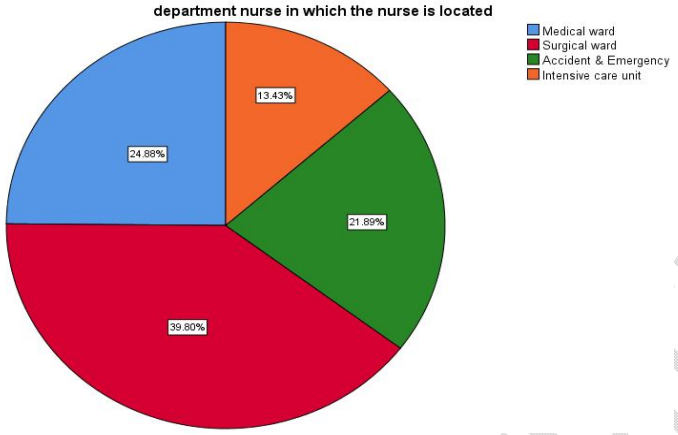

Figure 2. Frequency distribution of nurses in their working departments.

In this study, female nurse was the majority accounting to 56.7% while male respondents were 46.3%. Majority of the nurses working at the hospital were aged between 31-40 years which represents 47.3%. It is followed by those aged between 21-30 years which represents 26.9%. Those aged between 41-50 years account for 25.9% of the entire study population. The level of education among respondents was assessed. 54.2% had a Diploma, 42.3% had a Bachelor degree and 3.5% have a master's degree. From the study, a vast majority of nurses were married accounting for 75.6%. Those who are single represent 18.9%. The respondents who were not married (divorced, widowed) were the minority in this category representing only 5.5%.Among the nurses who took part in this study on average had 13 years of experience in the nursing profession and 7 years of working experience in the current unit. All nurses had at least 3 years of working experience in the nursing profession, and at least one year experience in the current unit. The nurses who have served for the longest period in the hospital worked for a maximum period of 27 years in the hospital and have worked in the current unit for a maximum period of 20 years.

Levels of Missed Nursing Care at the Hospital

At the University Teaching and Referral Hospital (CHUK) of Kigali, the level of missed nursing was regarded as moderate. From figure 3, it can be concluded that a vast majority of nurses 46.73% perceive the level of missed nursing care as moderate. 29.65% of them perceive the level

of missed nursing care activities to be high whereas 23.62% perceive that there is low level of missed nursing care activities by nurses working at the hospital.

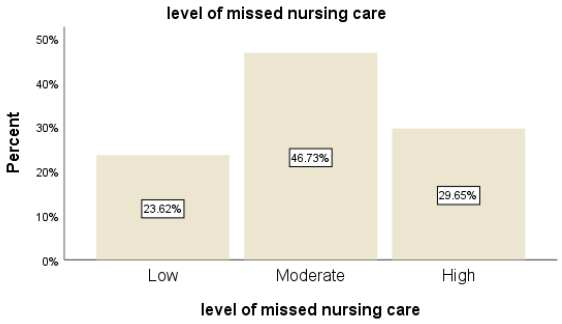

Figure 3. Levels of Missed Nursing Care activities at the hospital.

Types of Missed Nursing Care *a*ctivities by *n*urses *w*orking *at the hospital*

The study assessed the types of nursing care activities at the hospital. The goal was to establish which nursing care activities have been missed by the studied nurses. The results were as shown in table 1.The frequency of missed nursing care activities was recoded into three categories, that is nursing activities that have never been missed, sometimes been missed and always been missed. It is apparent that over 50% of the studied nurses have never missed the various types of nursing activities. Despite majority of the nurses responding not to have missed any nursing care activities there was some who sometimes missed and always missed certain nursing care activities. The top 10 nursing care activities that are sometimes missed by the nurses were: responding to drug request within 15 minutes (27.4%), reassessment of patients (26.4%), reply to call alarms within 5 minutes (26.4%), providing skin care for patients (26.4%), monitoring blood glucose level (25.9%), changing patient position after every 3 hours (25.4%), joining interdisciplinary whenever held (24.9%), setting food for patients who cannot feed oneself (24.4%), supporting patient reach latrine within 5 minutes (23.9%), providing patient health education 23.4% and assessing vital signs. The frequency of nursing activities that have always been missed at the hospital was quite low. However, ranking the top five nursing activities that have always been missed, the following results: replying to call alarms within 5 minutes (29.9%), joining interdisciplinary whenever held (25.4%), documentation of necessary information (24.9%), monitoring intake and output (21.9%) and patient health education (18.4%). These types of missed nursing care were repeatedly reported in (18, 23,24, 25, 26).

Table 1. Frequency distribution of types of Missed Nursing Care Activities.

Missed Nursing Care Variable	Never Missed		Sometimes Missed		Always Missed	
	No	%	No	%	No	%
Vital Signs Assessed	133	66.2	47	23.4	21	10.4
Monitoring Intake &Output	120	59.7	37	18.4	44	21.9
Monitoring blood glucose level	138	68.7	52	25.9	11	5.5
Patient Assessment	137	68.2	37	18.4	27	13.4
Reassessment of Patients	121	60.2	53	26.4	27	13.4
Drug Administration within 30Minute	151	75.1	21	10.4	29	14.4
Care Per standard hospital procedure	126	62.7	40	19.9	35	17.4
Drug Request responded within 15 Minutes	128	63.7	55	27.4	18	9.0
Assessment of effectiveness of medication	127	63.2	48	23.9	26	12.9
Health Education of Patient's family	141	70.1	41	20.4	19	9.5
Patient Health Education	117	58.2	47	23.4	37	18.4
Information to Patients	129	64.2	40	19.9	32	15.9
Setting food for patient who cannot feed oneself	136	67.7	49	24.4	16	8.0
Feeding Patient who cannot feed oneself	139	69.2	34	16.9	28	13.9
Feeding Patient warm food	158	78.6	28	13.9	15	7.5
Provide skin care for patients	125	62.2	53	26.4	23	11.4
Patient mouth care	128	63.7	36	17.9	37	18.4
Hand Washing for Nurses	138	68.7	39	19.4	24	11.9
Ambulating Patients as prescribed	127	63.2	51	21.4	23	11.4
Change patient position every 3hours	127	63.7	51	25.4	23	11.4
Support patient reach latrine within 5 minutes	127	63.7	48	23.9	26	12.9
Reply to call alarm within 5 Minutes	88	43.8	53	26.4	60	29.9
Documentation of necessary information	110	54.7	41	20.4	50	24.9
Join interdisciplinary whenever held	100	49.8	50	24.9	51	25.4

Nursing communication

Communication among nurses was examined to determine the level of significance in relation to missed nursing care activities by nurses at the hospital. The variables were ranked in descending order according to their levels as it can be seen in table 2. Ineffective communication between nurses and medical staff was the most significant factor accounting for 36.8%. All the elements of communicationwereperceived as significant factors and these are: ineffective communication with back up departments (27.9%), another department not providing the needed care (26.4%) and absence of back up from fellow members (24.9%).The factors that were perceived to be moderate were: insufficient handover from previous shift (46.8%), absence of back up from fellow members (46.8%),another department not providing the needed care (45.8%) and tension communication among nurses (45.8%) as they were also reported in the study of (2).

Table 2.Distribution of nursing communication

Variable examined	Not a factor		Moderate factor		Significant factor	
	No	%	No	%	No	%
Insufficient handover from previous shift	67	33.3	94	46.8	40	19.9
Another department did not provide needed care	56	27.9	92	45.8	53	26.4
Absence of back up from fellow members	57	28.4	94	46.8	50	24.9
Ineffective communication with other back up departments	55	57.4	90	44.8	56	27.9
Tension communication among nurses	68	33.8	92	45.8	41	20.4
Ineffective communication between nurses and medical staff	46	22.9	81	40.3	74	36.8

Relationship between nursing communication and level of missed nursing care

The study examined whether there could be an association between nurse related factors and missed nursing care. The aim was to determine whether the association was independent or just due to chance. Table 3. shows the summary of cross tabulation and chi square of communication factors and level of missed nursing care activities. From the table, all communication variables that were assessed that were; insufficient patient handover from previous shift, another department not providing the needed care, absence of back up from fellow members, ineffective communication with back up departments, tension communication among nurses and ineffective communication between nurses and medical staff were statistically significant. Thus, nursing communication factors were associated with missed nursing care at the hospital.

Table 3. Relationship between nursing communication and level of missed nursing care.

	Level of missed nursing care							
Nursing Communication	**Low**		**Moderate**		**High**			
	No	**%**	**No**	**%**	**No**	**%**		
Insufficient patient handover from previous shift							χ^2	**P-Value**
Not a factor	9	13.8	33	50.8	23	35.4	11.69	0.020*
Moderate factor	21	22.3	45	47.9	28	29.8		
Significant factor	17	42.5	15	37.5	8	20.0		
Another department did not provide the needed care								
Not a factor	7	13.0	36	66.7	11	20.4	14.82	0.005*
Moderate factor	23	25.0	41	44.6	28	30.4		
Significant factor	17	32.1	16	30.2	20	37.7		
Absence of back up from fellow members								
Not a factor	13	23.6	31	56.4	11	20.0	11.04	0.026*
Moderate factor	18	19.1	48	51.1	28	29.8		
Significant factor	16	32.0	14	28.0	20	40.0		
Ineffective communication with other back up departments								
Not a factor	12	22.6	32	60.4	9	17.0	11.16	0.025*
Moderate factor	18	20.0	36	40.0	36	40.0		
Significant factor	47	23.6	25	44.6	14	25.0		
Tension communication among nurses								
Not a factor	11	16.7	41	62.1	14	21.2	25.37	0.001*
Moderate factor	16	17.4	43	46.7	33	35.9		
Significant factor	20	48.8	9	22.0	12	29.3		
Ineffective communication between nurses and medical staff								
Not a factor	7	15.9	22	50.0	15	34.1	13.09	0.011*
Moderate factor	13	16.0	38	46.9	30	37.0		
Significant factor	27	36.5	33	44.6	14	18.9		

Multinomial logistic regression

Logistic regression model studies the association between a categorical dependent variable and a set of independent (explanatory) variables. The multinomial logistic model was used to predict a nominal dependent variable given one or more independent variables. In this study the dependent variable was level of missed nursing care activities which had three categories that is; low, moderate and high. The predictor variable was nursing communication, the first way the goodness of fit of the model is to consider whether the variables that were added to the model statistically significantly improve the model compared to the intercept alone that is with no variables added. The Pseudo R-Square results shows the percentage of the dependent variable explained by a set of independent variables. The Nagelkerke Pseudo-Square is 36.5%. This implies that 36.5% on the variation of the dependent variable is being explained by the independent variables.

Interpretation on low level of Missed Nursing Care category

In the "low"level category of missed nursing care, nurses who are of the view that nursing communication is a factor are 0.400 times.It was more likely to have low levels of missed nursing care activities compared to the reference category. For every one unit increase in nursing communication there is 1.492 increase in the log. odds for nurses to have low level of missed nursing care compared to the reference category. However, this is not statistically significant because the p-value is greater than 0.05.

$$Y = -5.837 + 0.400Nc$$

Y-Dependent Variable-Level of missed nursing care, Nc-Nursing communication,

Interpretation on Moderate Level of Missed Nursing Care

In the "moderate" level category of missed nursing care, nurses who are of the view that nursing communication was a factor were -0.355 times less likely to have moderate levels of missed nursing care activities compared to the reference category. For every one unit increase in nursing communication there is 0.701 increase in the log odds for nurses to have moderate level of missed nursing care compared to the reference category. However, this is not statistically significant because the p-value is greater than 0.05.

DISCUSSIONS

The nurses were asked how often certain types of nursing activities have been missed at the hospital. The data collected from their responses was computed and recoded into three levels that is low, moderate and high. Frequency analysis was done and the results revealed that majority, 46.73% of nurses viewed the level of missed nursing care at the hospital as moderate these findings are consistent with that of Diab & Ebrahim, (2019). 29.65% of the respondents have a perception that the level of missed nursing care was high whereas 23.62% of them were of the opinion that the level of missed nursing care was low. Since majority of the studied nurses had a view that the level of missed nursing care activities was moderate, it can be generalized that the level of missed nursing care activities at the hospital was moderate. This can be explained from the fact that from frequency analysis of types of missed nursing care activities, majority of the nurses responded that they have never missed the nursing care activities that were being assessed and very few responded to have always missed. Moreover, this can also be explained by noting

that from the analysis of nurse related factors specifically on their satisfaction level, majority of the nurses were satisfied with level of services offered at the hospital to nurses and were satisfied with their job, position, salary and had no intention of leaving. It should also be noted that 79.1% of nurses had not missed any shift. This also helps to explain why the level of missed nursing care was moderate at the hospital.

The level of missed nursing care activities was also analyses for each departmental ward at the hospital. 60.5% of nurses working in the accident and emergency wards had the highest level of missed nursing care activities compared to nurses working in other departmental wards. 66.7% of nurses working in the intensive care units had the lowest level of missed nursing care compared to the nurses working in other wards. 65.3% of nurses working in the medical ward and 55% of nurses working in surgical wards had moderate level of missed nursing care activities.Nurses working at the hospital were asked questions on five-point Likert scale on how often various nursing care activities have been missed. The data from their responses were recoded into three levels of frequency that was, whether the types of nursing activities have never been missed, sometimes missed and always missed. From frequency analysis of their responses the study found out that majority of the nurses responded that most of the nursing activities at the hospital that were being assessed have never been missed. The frequency of nursing activities that have always been missed at the hospital was quite low. This can be seen from their lower percentages in frequency analysis table. However, ranking the top five nursing activities that have always been missed, the following were the results: replying to call alarms within 5 minutes (29.9%), joining interdisciplinary whenever held (25.4%), documentation of necessary information (24.9%), monitoring intake and output (21.9%) and patient health education (18.4%). Despite majority of the nurses responding not to have missed any nursing care activities there are some who sometimes missed certain nursing care activities. The top 10 nursing care activities that are sometimes missed by the nurses are: responding to drug request within 15 minutes (27.4%),reassessment of patients (26.4%), reply to call alarms within 5 minutes (26.4%), providing skin care for patients (26.4%), monitoring blood glucose level (25.9%),changing patient position after every 3 hours (25.4%), joining interdisciplinary whenever held (24.9%), setting food for patients who cannot feed oneself (24.4%), supporting patient reach latrine within 5 minutes (23.9%) and providing patient health education(23.4%). These findings are consistent with that of (10,27,28,29).

Nursing communication factors were assessed to determine whether they contribute to missed nursing care at the hospital. The study findings revealed that all communication variables that were assessed that is; insufficient patient handover from previous shift, another department not providing the needed care, absence of back up from fellow members, ineffective communication with back up departments, tension communication among nurses and ineffective communication between nurses and medical staff are statistically significant and it was consistent with (10, 30,1,2,3). In the "moderate" level category of missed nursing care, nurses who are of the view that nursing communication was a factor are -0.355 times less likely to have moderate levels of missed nursing care activities compared to the reference category. For every one unit increase in nursing communication there is 0.701 increase in the log.odds for nurses to have moderate level of missed nursing care compared to the reference category. However, this is not statistically significant because the p-value is greater than 0.05.

Conclusions

The results indicated that the level of missed nursing care activities to be moderate. Accident and emergency departmental were the leading with high level of missed nursing care activities at the hospital. The intensive care unit has low level of missed nursing care. On analysis of types of missed nursing care activities at the hospital, majority of the studied nurses responded that they have never missed the various nursing activities that were being assessed. However, there were some nurses who sometimes missed and always missed certain nursing activities. In the study the nursing activities that were sometimes missed and always missed were ranked in descending order based on the percentages. Ranking the top five nursing activities that have always been missed, the following results: replying to call alarms within 5 minutes, joining interdisciplinary whenever held, documentation of necessary information, monitoring intake and output and patient health education.All nursing communication factors that were assessed were statistically significant and they influenced missed nursing care at the hospital.

Recommendations

This study makes the following recommendations:

1. The institution management should ensure that efficient and effective communication among the nurses, medical staff and other stakeholders.

2. Make sure whenever the workload is heavy, additional shift is called so that the current shift is not overwhelmed.

3.Ensure that there is balanced patient assignment so that nurses are not overwhelmed.

To the researchers

This study focused mainly on the level, types and factors contributing to missing nursing care, further studies can be done in the following areas:

1. Examine if there is relationship between level of missed nursing care and quality of patient care.
2. This was a cross sectional study, thus only associations between nursing communication and missed nursing care have been established. A mixed study whichrelies on both nursesand patients self-report is required to better clarify if these relationships between missed care and patient outcome are likely cause and effect.

Declarations

Before starting data collection, the researcher sought clearance from the Institution Ethical Review board at Mount Kenya University (MKU-IERB). The researcher submitted this copy from MKU ethical clearance to CHUK -ethical review committees and was granted the permission to conduct the research. Therefore,the research acquired an informed consent from the participants. The researcher followed all guidelines and protocols as stipulated in the ethical approvals.

Availability of data and materials

The datasets used and analysed during the current study are available fromthe principal or corresponding author on reasonable request through Mount Kenya University. This article is a part of the whole thesis.

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