Nursing: Research and Reviews

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ORIGINAL RESEARCH

Nurses' Communication to Patients and Associated Factors at East Gojjam Zone, Governmental Hospitals, Amhara Region, Ethiopia, 2022: An Institution-Based Cross-Sectional Study

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Purpose: This study aims to assess nurses' communication with the patient and associated factors at East Gojjam Zone governmental hospitals, Amhara Region, Ethiopia, 2022.

Methods: An institution-based cross-sectional study design was conducted among 378 study participants, from April 20/2022 to May 30/2022 at East Gojjam Zone governmental hospitals, Amhara Region, Ethiopia, 2022. A simple random sampling technique was utilized to select nurses from each hospital. Nurses' communication with the patient was measured by observation and a standardized checklist. The data were entered into Epidata version 4.6 and then exported to the Statistical software package for social science (SPSS) version 25 for analysis. A binary logistic regression model was used to identify factors associated with the nurse's communication with the patient. Variables with p-value ≤ 0.25 in the bivariable analysis were entered into the multivariable analysis. Thus, the association was considered statistically significant with a p-value <0.05 at a 95% confidence interval.

Results: A total of 378 nurses participated in the study, with a response rate of 96.4%. Out of this 215 (56.9%), with 95% CI (51.86–61.89%), had ineffective communication with the patient. In multivariable analysis, variables such as lower education level [AOR: 1.90, 95% CI (1.175–3.096)], shorter work experience [AOR: 2.163, 95% CI (1.143–4.091)], not taken communication skill training [AOR: 2.154, 95% CI (1.341–3.458)] and higher work overload [AOR: 2.084, 95% CI (1.255–3.460)] were factors significantly associated with ineffective communication.

Conclusion and Recommendation: In this study, nearly 57% of nurses' had ineffective communication with the patient. Lower education level, shorter work experience, not taken communication skill training, and higher work overload are significantly associated with ineffective communication. Hospital authorities and other health-sector stakeholders should consider providing continuous communication skill training, adequate educational opportunities for nurses, and recruiting an adequate number of nurses.

Keywords: communication, nurse, patient, hospital

Introduction

Communication is a complex process that revolves around the exchange of ideas, thoughts, and feelings, including both verbal and non-verbal processes. It is a multidimensional, multifactorial, dynamic, and complex process.[1] Since the time of Florence Nightingale in the 19th century until today, nurses have paid a great deal of attention and unreserved effort to improve effective communication in nursing practice.[2]

Ineffective communication can affect patients' safety, satisfaction, and quality of care, and has adverse effects on patients' compliance with recommended treatment regimens. If ineffective communication contributes to an adverse event, then better and more effective communication skills must be applied in response to achieve optimal outcomes for the patient's safety.[3,4]

Received: 1 March 2023
Accepted: 2 July 2024
Published: 17 July 2024

Effective communication enhances patients' adherence to treatment regimens, increases the rate of patients' recovery, helps to control pain effectively, and improves patient safety.[5,6] Patient safety has become a crucial priority in quality healthcare and is focused on preventing death and injury due to medical errors. According to one of the principles of basic human rights first, "no harm" patient safety should be the primary focus of healthcare systems to prevent malpractice while also providing quality healthcare.[7]

A communication barrier is anything that prevents us from receiving and understanding the messages others use to convey their information, ideas, and thoughts. Communication barriers greatly affect the communication process between the healthcare provider and the patient.[8]

Failure to communicate effectively was a major global potential obstacle in the provision of standard services in caring settings. This can result in anxiety, misunderstanding, misdiagnosis, maltreatment, and increased length of hospital staying.[9]

A study in Iran indicates barriers to communication potentially increase the risk of negative outcomes in patient care. Communication errors were the cause of 70–80% of the major adverse effects in healthcare settings.[10–12]

In the USA, the magnitude of the problem of ineffective communication in hospitals wastes over $12 billion annually, and an increase in length of stay accounts for 53% of the annual economic burden.[13]

Nowadays, nurses are providing care to more acutely and chronically ill patients with increased workloads and fewer resources; thus, interfering with the ability to develop effective communication.[4] Even if, the government of Ethiopia tried to provide communication skill training, there are still obvious shortages to provide effective communication due to several factors.[2]

The communication problem in the health care setting is still not solved, it is observed as an obstacle to better care and many patients suffered for a long period. Many patients return to their homes without getting health care services from hospitals due to communication problems. Patients now prefer to visit private hospitals to seek health care instead of government hospitals and this is hurting the revenue and image of government hospitals due to ineffective communication.[14,15]

Implementing Compassionate, Respectful, and Caring (CRC) programs and providing quality and equitable health services for patients are the health sector transformation agenda in Ethiopia. But, this agenda cannot be achieved without practicing effective communication in a healthcare setting.[14,15]

The increased healthcare service needs, community health insurance implementation, and rapid population growth from time to time lead to communication problems due to an imbalance of nurses with the patient number. Therefore communication problem remains a major challenge in a healthcare setting.

This study will help nurses, hospital authorities, and other stakeholders to fill the information gap and point the direction of action that should be taken to sustain effective communication. It will also have a significant contribution in promoting an effective relationship between the nurse and the patient and helps to minimize morbidity and mortality among patients. On the other hand, this study will motivate the interest of nurses, institution managers, and other health stakeholders for further investigations into nurses' communication with the patient.

Despite limited studies done to assess nurses' communication with the patient; there are no reports regarding nurses' communication with patients done by using observational checklists instead of asking nurses' perceptions in the study area. On the other hand, other variables have not yet been studied in Ethiopia and may be associated with nurses' communication with the patient such as; not rewarding nurses, the presence of other critically ill patients in the ward, and lack of communication technology were included in this study.

Therefore, this study aimed to assess nurses' communication with the patient and associated factors in East Gojjam Zone Government Hospitals, Northwest Ethiopia.

Methods

Study Area

This study was conducted in the East Gojjam Zone, one of the zones found in Amhara Regional state, Ethiopia. The Zone is around 300 km to the northwest of Addis Ababa, the capital city of Ethiopia. There are eleven governmental hospitals found

in East Gojjam Zone. The study was conducted in all eleven governmental hospitals. The hospitals are staffed with a total of 570 nurses with different qualification levels. Those hospitals are providing services for more than 3.5 million people.[16]

Study Design and Period

An institution-based cross-sectional study was conducted from April 20/2022 to May 30/2022.

Study Population and Inclusion Criteria

All nurses who were working in East Gojjam Zone governmental hospitals and available during the study period were included in this study.

Exclusion Criteria

Those nurses who were on annual, maternity, or sick leave were excluded.

Sampling Method and Sample Size Determination

The total sample size was obtained by proportionally allocating to all hospitals and then proportionally allocating to each unit based on the number of nurses working in the department for each hospital. Finally, a simple random sampling technique (lottery method) was used in each department to take the participants. The required data were collected from 378 nurses by using a single population proportion formula in East Gojjam Zone governmental hospitals, in Ethiopia.

Measurements

Data Collection Tools/Techniques/

The questions for socio-demographic characteristics, factors of nurses' communication with the patient, and nurses' communication with patient assessment observational checklist were adapted from previous studies conducted on similar objectives.[14,17] Data were collected by using a self-administered questionnaire and observational checklist that was employed after pre-tested. Likert scale type of questionnaire for factors and yes/no type questionnaire for nurses' communication with the patient was used after adapting the questions from different literature and making the necessary modification accordingly.

The first part contains 8 items of the questionnaire about nurses' socio-demographic characteristics. The second part contains 21 items Likert scale type of questions concerned with factors of nurses' communication with the patient. From the total 21 Likert scale items, 9 of them are nurse related, 7 of them are patient-related and 5 of them are working environment-related items. Each of the 21 likert scale item has five options: 1 = none, 2 = low, 3 = average, 4 = high, and 5 = very high.[14,17] For data analysis purpose, each of the 21 items were re-categorized into high and low groups, with responses of "none" and "low" = low (coded as "0") and responses of "average", "high" and "very high" = high (coded as "1").

Nurse to patient communication status was assessed by using observational checklist containing 18 yes/no type of questions. Each of this 18 items were initially coded as "yes"=1 and "no"=0 and then mean value was calculated by considering the maximum possible values of each items which becomes "9". Participants whose total mean score was ≥ 9 were considered as having effective communication, whereas those with a mean score of <9 were considered as having ineffective communication.[14,17]

Data collectors and supervisors were selected and one-day training was given for data collectors and supervisors focusing on the objective of the study and ways of data collection and handling after collection. The data were collected by six data collectors and two supervisors who have BSc in nursing. For data collected by observational checklist, the data collectors were collecting the data through the participant observation technique.

Data Processing and Analysis

The collected data were checked by the principal investigator for completeness, editing, and cleaning for missed values and variables. Then coded and entered into Epidata version 4.6 and exported to Statistical software package for social science (SPSS) version 25 programs for cleaning and analysis. Descriptive statistics like frequency and percentage of

different characteristics of the questionnaire were analyzed. Bi-variable and multivariable logistic regression analysis models were used to determine the association between predictor variables with the dependent variable.

The strength of association was interpreted using an Adjusted Odds Ratio (AOR) and 95% Confidence Interval (CI). Variables with p-value ≤0.25 in the bi-variable analysis were entered in the final model. Variables with a P-value <0.05 were considered statistically significant in this study. The result was summarized and presented in statements, tables, and graphs. Multi-collinearity was checked by using the Variance Inflation Factor (VIF). Finally, model fitness was assessed by using the Hosmer–Lemeshow test and which become 0.452.

Study Variables

Dependent Variables

Nurse's communication with the patient (effective or ineffective)

Independent Variables

Socio-demographic factors: Age, sex, religion, marital status, educational status, working unit, work experience, and monthly salary.

Nurses-related factors: Work overload, shortage of nurses, lack of time, the hardship of nurses' tasks, lack of knowledge and skill, attraction out of their duties, lack of work interest, poor colleagues relationship, and communication skill training.

Patient-related factors: High family interference, patient physical and mental discomfort, having other critically ill patients, presence of patient families or friends at the bedside, patient distrust of nurses competencies, the patient having a contagious disease, unawareness of the status and duties of the nurse.

Working environment-related factors: Lack of communication technology, inappropriate environmental conditions, busy hospital environment, unfamiliar hospital environment, and not rewarding nurses.

Data Management and Quality Control

To ensure the quality of data well-prepared data collection tool was utilized. Additionally, training was given to the data collectors and supervisors on the purpose of the study and the process of data collection.

The reliability of the observational checklist type of questionnaire was checked by collecting data from 20 nurses, before the actual data collection. Collecting data from 20 nurses was obtained based on 5% of the total sample size (382 nurses) of this study. So the reliability of the observational checklist type of questionnaire was checked by using Cronbach's alpha value which becomes 0.803. A Pretest of 5% of the nurse from outside the selected hospital was conducted in Finote Selam general hospital and necessary corrections were properly made.

Operational Definitions

Effective communication: study participants who scored greater than or equal to the possible mean of nurse's communication on patient-related observational items were considered as having effective communication.[18]

Ineffective communication: study participants who scored below the possible mean of nurse's communication on patient-related observational items were considered as having ineffective communication.[18]

Results

Socio-Demographic Characteristics of the Participants

Totally 378 nurses participated in the study with a response rate of (96.4%). Of the total study participant more than half, 205 (54.2%) were males. The mean age of the study participants was 31.94 years with (an SD of ± 5.221) years. Regarding their educational level, more than half of the participants 254 (67.2%) was a BSc degree and above holders. Regarding the working unit of participants, about 111(29.4%) of nurses were working in Emergency units (See Table 1).

Table 1 Socio-Demographic Characteristics of Nurses Working in East Gojjam Zone Governmental Hospitals, Amhara Region, Ethiopia, 2022 (N=378)

Variables	Categories	Frequency	Percent (%)
Sex	Male	205	54.2
	Female	173	45.8
Age	≤ 25	30	7.9
	26–35	264	69.8
	36–45	65	17.2
	≥46	19	5.1
Marital status	Single	136	36.0
	Ever married	242	64.0
Religion	Orthodox	286	75.7
	Muslim	50	13.2
	Protestant	14	3.7
	Catholic	12	3.2
	Others	16	4.2
Educational level	Diploma	124	32.8
	BSc and above	254	67.2
Year of experience	< 5 years	82	21.7
	5–10 years	166	43.9
	>10 years	130	34.4
Working Unit	Emergency	111	29.4
Monthly salary	<5295	32	8.5
	5295–7111	188	49.7
	>7111	158	41.8

Nurse-Related Factors Affecting Nurses' Communication with the Patient

From the total 378 study participants, 301 (79.6%) of nurses perceived the presence of nurses shortage as a high factor that affects nurses' communication with the patient. Regarding shortage of time, 289 (76.5%) of nurses perceived the presence of time shortage as a high factor that affects nurses' communication with the patient.

Work overload, the attraction of nurses out of work duties, and hardship of nurses' tasks were perceived as high factors that affect nurses' communication with the patient, by 273(72.2%), 261(69.0%), and 252(66.7%) of nurses respectively. Nurses' relationships with other colleagues, lack of interest in work, and lack of knowledge were perceived as high factors that affect nurses' communication with the patient, by 223(59.0%), 209(55.3%), and 205(54.2%) of nurses respectively. Finally, 239 (63.2%) of nurses had not taken communication skill training (See Table 2).

Patient-Related Factors Affecting Nurses' Communication with the Patient

Out of 378 study participants, 295 (78.0%) of nurses perceived the presence of other critically ill patients in the ward, as a high factor that affect the nurses' communication with the patient. Regarding high interference with the patient attendant, 286 (75.7%) of nurses perceived this as a high factor that affects nurses' communication with the patient. Concerning the presence of physical and mental discomfort, 282 (74.6%) of nurses perceived this as a high factor that affects nurses' communication with the patient. Finally, the presence of patient families at the bedside, patients having a contagious disease, patient distrust of nurses' competencies, and lack of awareness of nurse's duties were perceived as a high factor that affects nurses' communication with the patient, by 255 (67.5%), 244 (64.6%), 223 (59.0%) and 203 (53.7%) of nurses respectively (See Table 3).

Table 2 Nurse-Related Factors Affecting Nurses' Communication with the Patient at East Gojjam Zone Governmental Hospitals, Amhara Region, Ethiopia, 2022

Variables	Category	Frequency	Percent (%)
Having work overload in nurses	Low	105	27.8
	High	273	72.2
Shortage of nurses relative to the patient's number	Low	77	20.4
	High	301	79.6
Nurses not having enough time and opportunity	Low	89	23.5
	High	289	76.5
Characteristics& Hardships of Nurses' Task	Low	126	33.3
	High	252	66.7
Lack of knowledge among nurses	Low	173	45.8
	High	205	54.2
The attraction of nurses out of working duties	Low	117	31.0
	High	261	69.0
Lack of nurses' interest to work	Low	169	44.7
	High	209	55.3
The relationship of a nurse with other colleagues	Low	155	41.0
	High	223	59.0
Take communication skill training	Yes	139	36.8
	No	239	63.2

Table 3 Patient-Related Factors Affecting Nurses' Communication with the Patient at East Gojjam Zone Governmental Hospitals, Amhara Region, Ethiopia, 2022

Variables	Category	Frequency	Percent (%)
High interference with patient attendants	Low	92	24.3
	High	286	75.7
Physical and mental discomfort of the patient	Low	96	25.4
	High	282	74.6
Presence of other critically ill patients in the ward	Low	83	22.0
	High	295	78.0
Presence of patient families at the bedside	Low	123	32.5
	High	255	67.5
Patient distrusts nurses' competencies	Low	155	41.0
	High	223	59.0
Patients having contagious diseases	Low	134	35.4
	High	244	64.6
Lack of awareness of nurse's duties	Low	175	46.3
	High	203	53.7

Working Environment-Related Factors Affecting Nurses' Communication with the Patient

From the total 378 study participants, 292 (77.2%) of nurses perceived lack of communication technology as a high factor that affects nurses' communication with the patient. Regarding the busy hospital environment, 277 (73.3%) of nurses perceived the presence of a busy hospital environment as a factor that affects nurses' communication with the patient.

Concerning inappropriate hospital environments, 263 (69.6%) of nurses perceived it as a high factor that affects nurses' communication with the patient. Not rewarding nurses and unfamiliar hospital environment were perceived as high factors that affect nurses' communication with the patient, by 259 (68.5%) and 199 (52.6%) of nurses, respectively (See Table 4).

Table 4 Working Environment-Related Factors Affecting Nurses' Communication with the Patient at East Gojjam Zone Governmental Hospitals, Amhara Region, Ethiopia, 2022

Variables	Category	Frequency	Percent (%)
Lack of facility and communication technology	Low	86	22.8
	High	292	77.2
The busy environment (high noise)	Low	101	26.7
	High	277	73.3
Inappropriate environmental conditions	Low	115	30.4
	High	263	69.6
The unfamiliar environment of the hospital for the patient	Low	179	47.4
	High	199	52.6
Not rewarding nurses	Low	119	31.5
	High	259	68.5

Nurses' Communication with the Patient

Of the study participants, 215 (56.9%) of them had ineffective communication with the patient. Of the total 378 study participants, only 72 (19.0%) of them self-Introduced to the patient or his/her/family. Additionally, 123 (32.5%), 124 (32.8%), 129 (34.1%), and 136 (36.0%) of nurses, informed patient rights for the patient or his/her/family, encourage the patient or his/her/family to ask questions related to treatment, include a patient decision about his/her care and treatment, and provide information about the diet of the patient respectively.

The nurse responds to the patient's concerns and complaints at the hospital, gives instructions to the patient about medication and issues to be careful, dedicates adequate time to communicate with the patients, informs the patient about the medication-taking, explains the procedure to the patient before carrying out the procedure, inform the patients about positions that help to alleviate pain, and is polite towards the patient or his/her/family was also only done by <50% of the nurses.

Among the total study participants, 317 (83.9%) of them exchange greeting with the patient or his/her/family. Additionally, the nurse asks about the patient's overall health status, ask the patient's name and call by his/her name, give mental support to the patient, inform the patient of diagnostic tests or vital sign results, and inform the patient's health condition to the patient or his/her/family were done by >50% of the nurses (See Table 5).

Table 5 Nurses' Communication to Patient Assessment Tool and Frequency by Participants in East Gojjam Zone Government Hospitals, Amhara Region, Ethiopia, 2022

Observational Checklist	Answer	
	Yes	No
Does the nurse exchange greeting with the patient or his/her/ family	317(83.9%)	61(16.1%)
Do the nurses self-Introduce to the patient or his/her/ family	72(19.0%)	306(81.0%)
Does the nurse ask the patient's name and call by his/her name	222(58.7%)	156(41.6%)
Does the nurse inform patient rights to the patient /family/	123(32.5%)	255(67.5%)
Does the nurse ask about the patient's overall health status	251(66.4%)	127(33.6%)
Does the nurse explain the procedure to the patient or his family before carrying out the procedure (Injection, IV, etc…)	167(44.2%)	211(55.8%)
Does the nurse inform the patient of diagnostic tests (purpose, type of test) or vital sign results for the patient/family	208(55.0%)	170(45.0%)
Does the nurse give the patient or his/her family instructions about medication and issues to be careful	142(37.6%)	236(62.4%)
Does the nurse encourage the patient/family/ to ask questions related to the treatment and another issue	124(32.8%)	254(67.2%)
Does the nurse inform the patient or his/her family about the medication-taking (kind, dose, side effects)	161(42.6%)	217(57.4%)
Does the nurse inform the patient's health condition the patient or the patient family or friends	190(50.3%)	188(49.7%)
Does the nurse include the patient or his/her family's decision about his/her care and treatment	129(34.1%)	249(65.9%)
Does the nurse is polite towards the patients or his/her family (manner of speaking, protection of privacy)	181(47.9%)	197(52.1%)

(*Continued*)

Table 5 (Continued).

Observational Checklist	Answer	
	Yes	No
Does the nurse dedicate adequate time to communicate with patients or his/her family	150(39.7%)	228(60.3%)
Does the nurse respond to the patient's concerns and complaints at the hospital	141(37.3%)	237(62.7%)
Does the nurse give mental support to the patient and his/her family	212(56.1%)	166(43.9%)
Does the nurse provide information for the patient or his/her family about the diet of the patient	136(36.0%)	242()64.0%
Does the nurse inform the patients about positions that help alleviate pain and of the medication given	167(44.2%)	21(55.8%)

Factors Associated with Nurses' Communication with the Patient

Eleven variables with p-value ≤ 0.25 were eligible to enter into the multivariable analysis. These variables were, the socio-demographic factors (age, marital status, education level, work experience, and monthly income), the nurse-related factors (workload, lack of knowledge, communication skill training), the patient-related factors (presence of other critically ill patients, presence of patient family at the bedside), and the working environment-related factors (not rewarding nurses) were significantly associated with ineffective communication in bi-variable analysis.

Then to control possible confounders, variables which have a P-value ≤ 0.25 were entered into multivariable logistic regression analysis. Finally from the multi-variable logistic regression analysis, four variables were significantly associated (P-value < 0.05, 95% CI) with ineffective communication.

These variables were education level of participants with [AOR: 1.90, 95% CI (1.175–3.096), P-value: 0.009], work experience of nurses [AOR: 2.163, 95% CI (1.143–4.091), P-value: 0.018] communication skill training with [AOR: 2.154, 95% CI (1.341–3.458), P-value: 0.001] and work overload with [AOR: 2.084,95% CI (1.255–3.460), P-value: 0.005].

In this study, those nurses who have a diploma in nursing were 1.9 times more likely to have ineffective communication with patients than BSc degree and above holders [AOR: 1.90, 95% CI (1.175–3.096), P-value: 0.009].

Those nurses who have experience of <5 years were 2.2 times more likely to have ineffective communication with patients than >10 years' experience [AOR: 2.163, 95% CI (1.143–4.091), P-value: 0.018]. Similarly, those nurses who were not taken communication skill training were 2.15 times more likely to have ineffective communication with patients than nurses who were taken communication skill training [AOR: 2.154, 95% CI (1.341–3.458), P-value: 0.001].

Those nurses who perceived work overload as a high factor were 2 times more likely to have ineffective communication than nurses who perceived it as a low factor for communication [AOR: 2.084,95% CI (1.255–3.460), P-value: 0.005] (See Table 6).

Table 6 Bi-Variable and Multivariable Logistic Regression in Governmental Hospitals of East Gojjam Zone, Amhara Region, Ethiopia, 2022

Variables	Category	Nurses Communication on Patient		COR(95% CI)	AOR(95% CI)	P-value
		Ineffective	Effective			
Age	<25 years	23(76.9%)	7(23.3%)	2.390(0.689–8.283)	0.588(0.131–2.643)	0.488
	26–35years	149(56.4%)	115(43.6%)	0.942(0.367–2.419)	0.332(0.110–1.002)	0.050
	36–45years	32(49.2%)	33(50.8%)	0.705(0.251–1.980)	0.522(0.172–1.583)	0.251
	≥46 years	11(57.9%)	8(42.1%)	1	1	
Marital status	Single	85(62.5%)	51(37.5%)	1.436(0.935–2.206)	1.127(0.691–1.838)	0.631
	Ever married	130(37.5%)	112(62.5%)	1	1	
Educational level	Diploma	88(71.0%)	36(29.0%)	2.444(1.544–3.869)	1.907(1.175–3.096)	**0.009**
	BSc and above	127(50.0%)	127(50.0%)	1	1	
Work experience	<5 years	57(69.5%)	25(30.5%)	3.209(1.787–5.762)	2.163(1.143–4.091)	**0.018**
	5–10 years	104(62.7%)	62(37.3%)	2.361(1.476–3.776)	1.722(1.035–2.865)	**0.036**
	>10 years	54(41.5%)	76(58.5%)	1	1	

(*Continued*)

Table 6 (Continued).

Variables	Category	Nurses Communication on Patient		COR(95% CI)	AOR(95% CI)	P-value
		Ineffective	Effective			
Training status	Not trained	158(66.1%)	81(33.9%)	2.806(1.823–4.319)	2.154(1.341–3.458)	**0.001**
	Trained	57(41.0%)	82(59.0%	1	1	
Monthly salary	<5295	23(71.9%)	9(28.1%)	2.588(1.127–5.941)	0.940(0.307–2.883)	0.914
	5295–7111	113(60.1%)	75(39.9%)	1.546(1.009–2.371)	0.948(0.539–1.667)	0.853
	>7111	79(46.6%)	79(53.4%)	1	1	
Work overload	High	73(69.5%)	32(30.5%)	2.105(1.304–3.396)	2.084(1.255–3.460)	**0.005**
	Low	142(52.0%)	131(48.0%)	1	1	
Lack of knowledge	Low	104(60.1%)	69(39.9%)	1	1	
	High	111(54.1%)	94(45.9%)	0.783(0.520–1.180)	0.827(0.527–1.296)	0.406
Presence of Other critical patients	Low	52(62.7%)	31(37.3%)	1	1	
	High	163(55.3%)	132(44.7%)	0.732(0.443–1.207)	0.786(0.457–1.354)	0.386
Family presence	Low	80(65.0%)	43(35.0%)	1	1	
	High	135(52.9	120(47.1%)	0.605(0.388–0.943)	0.722(0.444–1.176)	0.189
Not rewarding nurses	Low	77(64.7%)	42(35.3%)	1	1	
	High	138(53.3%)	121(46.7%)	0.622(0.397–0.974)	0.907(0.549–1.500)	0.704

Note: Variables written in bold under their P-values were statistically significant.
Abbreviations: AOR, Adjusted odds ratio; COR, Crude Odds ratio.

Discussion

The study was trying to address issues related to nurses' communication with the patient and associated factors at East Gojjam Zone governmental hospitals, Amhara Region, Ethiopia. A total of 392 nurses were selected to participate in the study, among these 378 nurses participated and made a response rate of 96.4%.

Effective communication is an important characteristic for nurses in nursing care and having the ability to interact appropriately with colleagues, patients, and other health agents. Nurses' communication practices are considered a means to provide and improve the quality of nursing care. When nurses practice effective communication continuously in a healthcare setting, optimal health outcomes can be easily reached.[19]

The finding of this study revealed that more than half (56.9%) of nurses had ineffective communication with the patient. This result is lower than the study conducted in Vietnam, Bach Mai Hospital, which showed 88% of nurses were not qualified for overall effective communication.[20] This variation might be due to the small sample size in the Vietnam study, the study setting, and the tool difference.

It is also lower than the study conducted in Greece, at Crete Hospital, the result showed 65.8% of nurse staff had ineffective communication with the patient.[21] The discrepancy might be due to differences in the study setting, data collection technique, tool difference, and sample size difference in Greece, the study had a relatively small sample size.

Similarly, this study finding is lower than the study done in Ethiopia, Addis Abeba, at Tikur Anbessa Specialized Hospital, and the result is 65.5% of nurses had ineffective communication with the patient.[17] This discrepancy might be due to differences in nurses' communication skill training status, education level, and data collection technique.

On the contrary, this study's finding was higher than the study carried out in Ethiopia, Amhara region; the result showed that 38.6% of nurses had ineffective communication skills.[18] This variation might be due to sample size and educational level differences among nurses.

Similarly, this study was higher than the study conducted in Ethiopia, Bahir Dar city; the result indicates 36.5% of nurses had ineffective communication with the patient.[14] This discrepancy might be due to the difference in nurses' educational levels that this study had a relatively small number of BSc and above nurses and the difference in data collection technique.

The findings of this study showed that the educational qualification of nurses was significantly associated with ineffective communication. Nurses with an education level of diploma in nursing were 1.90 times more likely to have

ineffective communication with the patient than BSc and above holders. This suggests that nurses with a low level of education might have less opportunity to obtain up-to-date knowledge and skill about nurses' communication with the patient. This was in line with the previous studies done in Ethiopia, at Addis Abeba in which nurses with lower education levels had higher ineffective nurses communication with the patient than nurses with higher education levels.[14,17]

Nurses with an experience of <5 years were 2.2 times more likely to have ineffective communication with the patient than nurses with >10 years of experience. Similarly, nurses with an experience of 5–10 years were 1.7 times more likely to have ineffective communication with the patient than nurses >10 years. This finding was similar with a study in Saudi Arabia in which nurses with shorter experience had more ineffective communication than nurses with longer experience.[22] This might be due to nurses with lower experience might have less chance to learn from others in day-to-day communication practice.

This study showed that nurses who had not taken communication skill training were 2 times more likely to have ineffective communication with the patient than nurses who had taken the training. This suggests nurses with a lack of communication skill training might have more difficulty communicating with the patient. This was in line with the previous study done in Iran in which nurses who did not take communication skill training showed higher ineffective communication than nurses who had taken communication skill training.[10]

Those nurses who perceived work overload as a high factor were 2.0 times more likely to have ineffective communication than nurses who perceived work overload as a low factor.

This study suggests that having work overload leads to a shortage of time to communicate with the patient. This study was consistent with the previous study done in Iran.[10] A study in Ethiopia showed that the major source of factors that affect nurses' communication with the patient was work overload.[17]

Limitations of the Study

The limitation of this study was limited to nurses who are working only in government hospitals in East Gojjam Zone in Ethiopia, not including the private hospitals due to constraints of time and funds. The other limitation of this study was participants are only nurses, not including the idea of the patient. Finally, the cross-sectional nature of the study design does not show the cause-and-effect relationship between dependent and independent variables.

Conclusion

In this study, nearly 57% of nurses' had ineffective communication with the patient at East Gojjam Zone governmental hospitals. The lower educational level of nurses, shorter years of work experience, not taking communication skill training, and nurses having higher work overload, showed a significant association with ineffective communication. Healthcare organizations can enhance the quality of services by comprehending and addressing these contributing factors to ineffective communication.

The findings of this study showed nurses' communication with the patient has an important implication for all hospitals to address the problem and needs a broad approach. Hospital authorities and other health sector stakeholders should consider providing continuous communication skill training, adequate educational opportunities, and recruiting an adequate number of nurses proportional to the patient number to reduce the work overload.

Future researchers also need to conduct a longitudinal study to assess the cause-and-effect relationship between nurses' communication with the patient and the independent variables.

Abbreviations

AOR, Adjusted Odds Ratio; BSc, Bachelor of Science; COR, Crude Odds Ratio; CI, Confidence Interval; SD, Standard Deviation; USA, United States of America; VIF, Variance Inflation Factors.

Data Sharing Statement

The data set supporting the conclusion of this article is available from the author on request.

Ethics Approval and Consent to Participate

To conduct the study, an ethical clearance and supporting letter were obtained from Debre Markos University, College of Health Science, and the Department of nursing research committee. Formally written letters were given to each East Gojjam Zone governmental hospital. The data collection process was carried out after all permission and cooperation were obtained.

The study title, purpose, procedure, duration, possible risks, and benefits of the study were informed for the study participants. Then, written informed consent was taken from each study participant. The confidentiality of study subjects was maintained by excluding their name during the period of data collection. They informed well that they have full right to refuse the study.

Acknowledgment

First of all, we would like to say thanks to Debre Markos University for providing us ethical clearance and support letter. Secondly, we would like to express our special gratitude to East Gojjam Zone government hospitals managers and participant nurse staffs for their unreserved cooperation that help us to obtain data for this study. Finally, thanks to all data collectors and supervisors.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis, and interpretation, or all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Disclosure

The authors declare that they have no competing interests.

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