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Interprofessional Collaboration Among Nurses and Physicians and Associated Factors in Comprehensive and Teaching Hospitals, in Northwest Amhara Region, Ethiopia, 2022: Mixed-Method Study

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A THESIS SUBMITTED TO THE DEPARTMENT OF PEDIATRICS AND CHILD HEALTH NURSING, SCHOOL OF HEALTH SCIENCE, COLLEGE OF MEDICINE AND HEALTH SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN PEDIATRICS AND CHILD HEALTH NURSING

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Lists of Acronyms and abbreviation

AOR	Adjusted Odd Ratio
ATLAS.TI	Archive for Technology, life world And everyday language Text Interpretation
COD	Crude Odd Ratio
ICP	Interdisciplinary Collaborative Practice
IPC	Inter-Professional Collaboration
IPE	Inter-Professional Education
IRB	Institutional Review Board
JCAHO	Joint Commission on Accreditation of Health Care Organizations
NPCS	Nurse Physician Collaboration Scale
SPSS	Statistical Package Social Sciences

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Abstract

Background: Inter-professional collaboration ensures that healthcare teams play collaborative roles, share decisions, provide efficient care for patients, increase professional satisfaction, and reduce costs. Ineffective collaboration could result in costly medication errors and deaths associated with medical accidents**.**

Objective: To assess inter-professional collaboration and associated factors among nurses and physicians working in comprehensive and teaching hospitals in the northwest Amhara region of Ethiopia in 2022.

Method: This study used a mixed (institution-based cross-sectional and phenomenological qualitative) design. A structured self-administered nurse-physician collaborative scale questionnaire was used to collect quantitative data from 279 nurses and 87 physicians working in the Northwest Amhara region. A simple random sampling technique was used to select participants. The magnitude of association was measured using the odds ratio at a 95 % confidence interval and was statistically significant at a p-value less than 0.05 using multivariable logistic regression analysis. Qualitative data were collected from 9 key informants via interview guide and analyzed using ATLAS.ti version 7.0.7 software via narratives using the thematic analysis method.

Result: According to the findings of the study, more than half of the respondents (56.6 %) had effective collaboration. Descriptive statistics like mean, frequency, and percentage were computed and displayed using text tables and graphs. In the final model of multivariable analysis, unsatisfactory organizational support, poor professional support, and poor interpersonal support were all independently associated with ineffective collaboration. The qualitative findings identified poor professional communication, lack of professionalism, and failure to adhere to professional duties as barriers to nurse-physician collaboration.

Conclusion: in this study, nurse-physician collaboration was relatively effective. Potential predictors of decreased effective nurse-physician collaboration included an increase in dissatisfaction with organizational support, a decrease in professional support, and poor interpersonal support. This outcome emphasizes the importance of improving nurse-physician collaboration by enhancing organizational, professional, and interpersonal factors to form effective collaborative practice.

Key words: nurse, physician, associated factors, collaboration

1. Introduction

1.1 Background

Collaboration can be described in different terms; inter-professional collaboration, multidisciplinary collaboration, coordination, communication, teamwork, and shared care(1).

Interprofessional collaboration could be defined as a process involving mutual and active participation among independent professionals in which each group of healthcare professionals has the knowledge and skills to provide care and their interaction is governed by mutually agreed-upon shared norms and visions(2).

Collaboration has many benefits. It reduces negative outcomes and errors, shortens hospital stays, and enhances patient care, safety, and health-care coordination. Additionally, it improves patient and caregiver satisfaction, shortens treatment times, lowers healthcare costs, and reduces stress and conflict among healthcare professionals(3, 4). While ineffective interprofessional collaboration negatively affects daily interactions, it also impairs patient care quality and increases the risk of medical errors(5).

Africa has fewer than 2.5 health professionals per 1,000 people(6, 7), compared to 12.5 in the United States(7). Moreover, Sub-Saharan Africa is the most affected region(8), as a result, this high nurse-to-patient and physician-to-patient ratio compromises patient safety while also causing moral discomfort among healthcare workers. Inter-professional collaboration is affected by a scarcity of health-care practitioners.

Ethiopia, as a Sub-Saharan African country, has a very low physician-to-population ratio in comparison to its large population. It had a population density of 0.08 per 1000 population for physicians and 0.71 per 1000 population for nurses(9-11) compared to South Africa's 0.79 and 1.35, Nigeria's 0.38 and 1.93, and Egypt's 0.75 and 1.93 per 1000 population(12) and this low professional density affects collaboration.

As care needs become more complex, a single health care professional is less likely to be able to address them alone, emphasizing the importance of collaboration(13). In a dynamic and complex care setting, effective collaboration helps to improve patient wellbeing, treatment quality, and patient and professional satisfaction (14).

Ethiopia, like most developing countries, has insufficient healthcare services and vast unmet healthcare needs, as well as overcrowded hospitals, which puts a strain on healthcare providers and

reduces quality of care. Positive collaboration among professionals is essential, in addition to the government's efforts to increase the number and quality of health-care facilities.

The nurse-physician collaboration has received little attention, according to the study's findings, leaving policymakers and other stakeholders in Ethiopia in the shadow. In the few works of literature available in Ethiopia and the Amhara region, important interpersonal factors (such as motivation, personal differences, trust and respect, and communication), professional factors (such as inter-professional education, professional power, and individual competency), and organizational factors (administrative support, resources, leadership style, and organizational structure) have not been thoroughly researched. As a result, the purpose of this study was to fill the gap and provide a more comprehensive assessment of the problem.

1.2 Statement of the problem

There are numerous interfaces in the existing healthcare delivery system for providing patient care with various health care professionals and varying levels of experience, and effective collaboration and communication are required(15). Patient safety is compromised when health care workers fail to collaborate and communicate effectively, as evidenced by information gaps, misinterpretation, and unclear instructions (16, 17).

According to the world health organization (WHO) framework for interprofessional education (IPE) and interprofessional collaboration (IPC) in the report, many health systems and health professionals around the world are disconnected and overwhelmed trying to meet unmet health demands. Despite the fact that nurses and physicians work closely together and share a commitment to patient wellbeing, a prevalent type of conflict in hospitals is that between nurses and physicians, which is caused by a lack of daily interaction and coordination(18).

Today's healthcare system is filled with mistakes and results in massive human and financial costs. Over 1 in 10 patients worldwide continue to be harmed as a result of safety lapses during their care. Every year, over 3 million people die as a result of unsafe care. The majority of this burden falls disproportionately on low-to middle-income countries. According to recent estimates, unsafe care kills 4 out of every 100 people in the developing world(19).

According to the US Department of Health and Human Services, one out of every twenty patients has a hospital-related infection. As a result of faulty communication among care providers, one out of every seven recipients is harmed during the course of care, costing the government an estimated $12 billion per year. An increased length of stay accounts for 53% of the annual economic burden (19-21). Ineffective collaboration and communication are associated with medication errors and treatment delays, which are major risk factors for patient injury, and their failure has been reported by joint commission sentinel events(22).

Different studies in different areas of the world showed that effective collaboration had many positive outcomes. A study in the United States found that an increase in collaboration resulted in a significant role in infection prevention, increased discharges, and an average decrease in hospital stay(23).

A study in Iran found that ineffective collaboration causes 97% of the stress, compromises patient safety and quality of care by 72%, and increases errors by 70%(24), and a qualitative finding also

showed that individual reasons, work pressure, and a lack of coordination among healthcare team members were factors for ineffective collaboration (5).

According to a study done in Italy, poor collaboration and a tense environment cause misunderstandings, errors, and ongoing conflict between nurses and physicians, which affect patient outcomes, nurses' job satisfaction, and organizational cost; lower power at work; and poor working conditions; thus there is a high risk for accidents and mistakes during care provision(25).

A study conducted in Egypt found that unsmooth professional collaboration between nurses and physicians can lead to conflicts and endanger patient care; conflict among colleagues can lead to antagonistic and aggressive behaviors that hinder the therapeutic nurse-client relationship(26).

Medication errors are quite common in Ethiopia, with at least one out of every two medications being incorrectly prescribed and administered. According to the study, the overall occurrence of medication errors in Ethiopia was 57.6 %(27). This showed 3 out of 10 patients had received incorrect medication, which may have led to adverse outcomes.

Inter-professional collaboration continues to face significant challenges, hampered by organizational and individual factors such as differences in professional power, knowledge base, and professional culture (28). In Ethiopia, there has been little research on nurse-physician collaboration, which has also revealed unsatisfactory collaboration (29-31).

The current literature had a general limitation in that the data collection process was only quantitative, so when combined with qualitative study findings, it could not provide in-depth details on the problems. The current study could be a mixed-methods approach to evaluate the state of inter-professional collaboration and the factors that influence it and has the potential to generate significant evidence for evidence-based collaborative practice to improve inter-professional collaborative practice.

As a result, there is a need to investigate IPC in teaching and referral hospitals in Ethiopia's north-west Amhara region to improve professional collaboration and patient satisfaction outcomes. It is an actual observed problem in clinical practice that needs to be researched in order to see optimal patient care from healthcare providers. Therefore, this study tries to see nurse-physician collaboration and associated factors in teaching and referral hospitals in the north-west Amhara region of Ethiopia in 2022.

1.3 Significance of the study

The findings of this study will provide information for study participants regarding their current level of collaboration among them, and it will help to find the gaps among them and be useful to increase the awareness of health professionals' communication skills in hospitals and health professionals to improve their collaboration, which helps them to achieve positive patient outcomes.

Local policymakers and administrators by showing areas of gaps to design intervention strategies that will encourage collaboration among health care professionals. Hence, it can improve the delivery of care in hospitals since it decreases mortality, morbidity, and long hospital stays, which in turn contribute to the community and country's socioeconomic development.

Finally, to our understanding, there are limited previous studies that have examined the collaboration level of health professionals at the regional and/or national level, and the findings of this study will be used as a source reference point for future researchers in this field.

2. Literature review

2.1 Inter-professional collaboration

Inter-professional collaboration might be a key consider initiatives designed to increase the effectiveness of health services currently offered to the people. A study conducted in USA revealed that 70% of the nurses had a positive collaboration with the physicians (32). A study conducted in Italia revealed that 51.5% (33). A cross-sectional study in China showed that the collaboration was 77.4%(34). A study conducted in Egypt showed that 39.4% of nurses had an occasional perception level regarding nurse-physician collaboration (35). A cross-sectional study done in southwest Ethiopia, 66.7% of participants had a satisfactory inter-professional collaboration (36). Institution-based a cross-sectional study in North Ethiopia showed that 54.3% were showed frequent collaborations(31). Similarly a study in Addis ababa showed that 42.7 % infrequent collaborative behaviour (30). Another hospital-based study in North West Ethiopia showed 41% of their collaboration is poor (29).

2.2 Associated factors

2.2.1 Socio demographic characteristics

These socio demographic characteristics can affect the outcome variable independently. Includes; age, sex, marital status, level of education, working experience and working area/unit. A different studies had showed that socio-demographic factors affect IPC in differently either effectively (positively) or ineffective (negatively) ways. A study conducted in Italy showed that working in surgical versus medical wards or having higher seniority or a medical emergency team programme or intervention was respectively, better acceptance to collaboration(37). A study done in Philippines showed a big relationship with age toward collaboration (18). A study conducted in Addis Abeba revealed that the younger age showed more frequent collaborative behaviour (mean value 78.61±16.70), as compared to adulthood groups with (a mean of 72.58±15.36), and the participants with short service years showed more frequent collaborative behavior(80.00±17.28) as compared to respondents with more service years with a mean (69.81±12.64)(30).

2.2.2 Interpersonal factors

Interpersonal factors include, motivation, individual attributes, trust and respect and communication. A cross-sectional study in Iran, inter-professional collaboration and teamwork, employment status and attitude toward teamwork could significantly determine nurses' attitude toward interprofessional collaboration(38).

A qualitative study conducted in the USA showed that shared decision and communication were affected collaboration (39). An institutional-based a cross-sectional study conducted in north Ethiopia showed that unfavorable attitude toward shared education and teamwork, poor communication greatly affects the collaboration (31). Some research also shows that it's negative consequences, including psychological and physical outcomes (40).

2.2.3 Organizational factors

These organizational factors play significant roles in determining the collaboration between professionals. This factors includes; administrative support, leadership style and resources. A literature review study conducted in Iran identified that the hospital management and government policies, IPE affect the nurse-physician collaboration(41).

Another qualitative study in Egypt showed that improvement and better organization of resources, policy modification, education and training, use of technology and work environment change were factors significantly affects the nurse-physician collaboration (42). A cross-sectional study conducted in north Ethiopia showed that unsatisfied by organizational support (31). Furthermore, hospital rules and regulations, a shortage of professionals at the administrator level are other factors (43). Many studies showed that organizational factors affect the collaboration.

2.2.4 Professional factors

Professional factors includes; inter-professional education, professional power/role responsibility and individual competency which affects the effective collaboration in several ways. A study conducted in China revealed that burnout, and job satisfaction were affects professional collaboration (44).

A qualitative study done in Singapore, showed that the underlying reasons for factors that affect collaborative practice were physicians dominance and nursing undermine, and this disrespect between professionals affect the collaboration among them (40). Similarly a study in Lebanon showed that physicians disagreed that nurses should be considered as a collaborator and colleague (45). A study Nigeria showed that professionals' work performance, job satisfaction and conflicts

are related to professionals collaboration (46). A study conducted in northern Ethiopia showed that have an professional growth, motivations and recognitions which is greatly affects the nurse-physicians collaboration(31).

3. Conceptual framework

The conceptual framework addresses: (1) participants' background characteristics (age, sex, marital status, education status, working department, work experience); and (2) the nurse-physician collaborative scale, which contains 27 items classified into three subscales: sharing of patient information; joint participation in the cure/care decision-making process; and also the relationship between nurse and physician [cooperativeness]. Other factors like (3) organizational factors, (4) professional factors, and (5) interpersonal factors are answered by employing a five-item Likert scale.

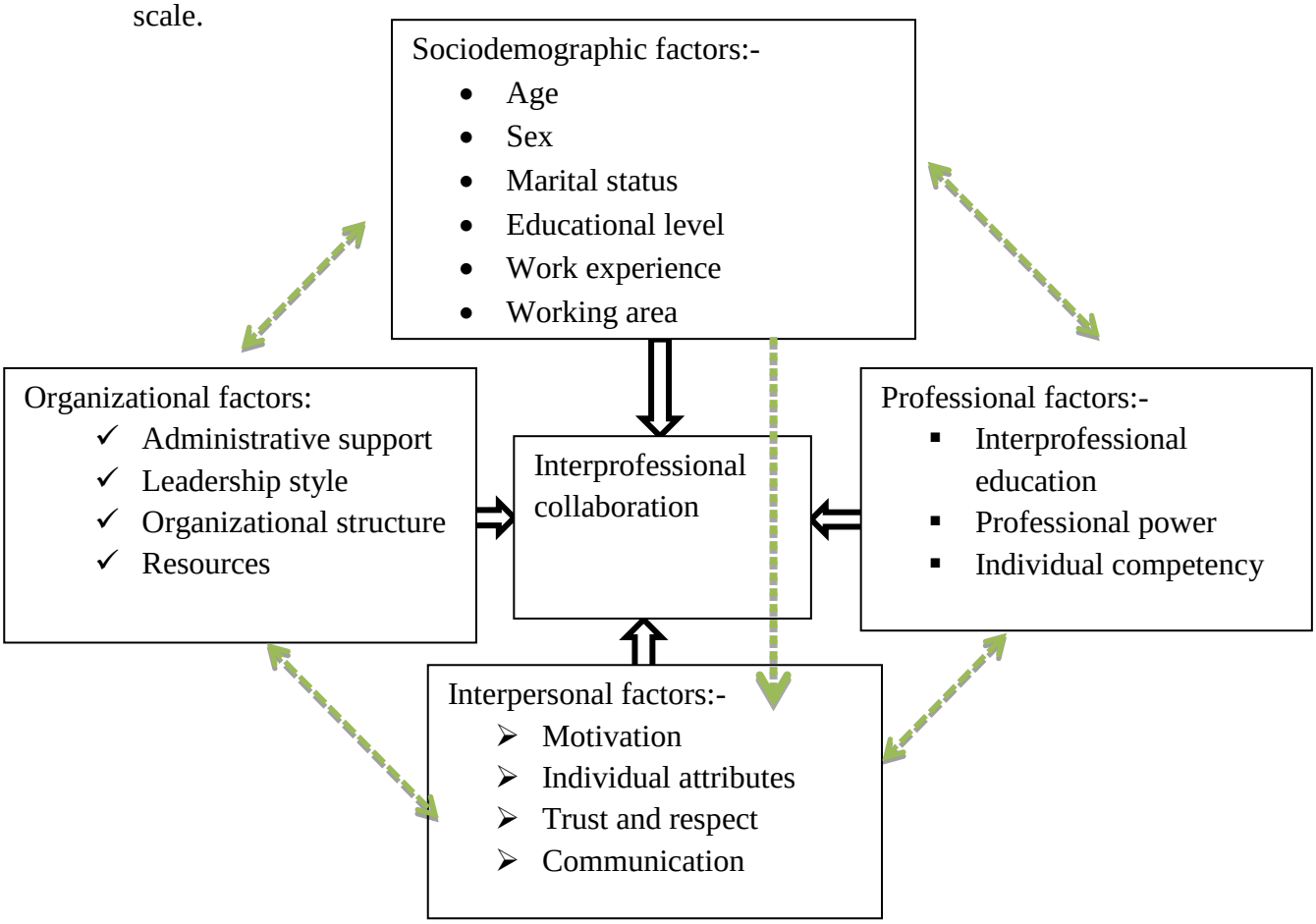

Figure 1: Conceptual framework reviewing from(47) previous literatures on factors that affect interprofessional collaboration practices.

4. Objectives

4.1 General objective

To assess inter-professional collaboration and associated factors between nurses and physicians working in comprehensive and teaching hospitals in northwest Amhara region, Ethiopia 2022

4.2 Specific objectives

To determine the prevalence of interprofessional collaboration among nurses and physicians

To identify factors associated with interprofessional collaboration among nurses and physicians

To explore the lived experiences of nurses and physician regarding their collaboration

5. Methods and materials

5.1 Study area and period

This study was conducted in Bahir Dar (two government hospitals), the capital city of the Amhara region, which is located 575 kilometers from Ethiopia's capital. The Debre Tabor comprehensive hospital is located in Debre Tabor, the capital of the South Gonder Zone, approximately 80 kilometers from Bahir Dar.

According to the human resource directorate, there are 303 nurses and 150 physicians at Tibebe Ghion comprehensive specialized hospital [TGSH], 467 nurses and 120 physicians at Felege Hiwot comprehensive specialized hospital [FHCSH], and 171 nurses and 51 physicians at Debre Tabor referral hospital [DTRH]. The research was carried out from May 13 to June 13, 2022.

5.2 Study Design

The study design was mixed-methods (hospital-based cross-sectional study supported by phenomenological qualitative descriptive study design).

5.3 Population

5.3.1 Source population

During the study period, all nurses and physicians working in public comprehensive and teaching hospitals in Ethiopia's north-west Amhara region were considered the source population.

5.3.2 Study population

Nurses and physicians who worked in selected public comprehensive hospitals and were available at the time of data collection.

5.4 Inclusion and Exclusion criteria

5.4.1 Inclusion criteria

The study included all nurses and physicians who worked at the selected hospitals and were available during data collection.

5.4.2 Exclusion criteria

Nurses and physicians with less than six months of experience who are not working (on annual leave, study leave, sick leave, or training) during the data collection period were excluded from the study.

5.5 Sample size determination and sampling procedure

5.5.1 Sample size determination

A single population proportion formula was used to calculate the estimated sample size (n):

(Za/2)2 *p (1-p)/d2 = n

Where, n = (1.96)2(0.667) (0.333)/ (0.05)2) = 341

n = sample size estimated

Z = normal distribution at a 95% confidence level, = 1.96

P = prevalence, based on 66.7 % of research conducted in Jimma, Ethiopia(36)

d = is a reasonable margin of error (d = 0.05), or 5%.

Taking a 10% non-response rate into account, the final sample size for the study was 375, so using the proportional sample size allocation formula for each stratum of study participants,

ni = N*in/N where,

ni = sample size required of nurses and physicians in each stratum in selected hospitals.

Ni = total number of nurses and physicians in each stratum in the selected clusters.

n = the total sample size to be chosen.

N = total number of professionals in the selected hospital As a result, participants were chosen accordingly.

The total number of nurses in TGSH was 303*375/1261=90, whereas the total number of physicians was 150*375/1261=44.

The total number of nurses in FHCSH was 467*375/1261=139, whereas the total number of physicians was 120*375/1261=36.

The total number of nurses at DTCRH was 171*375/1261=51, while the total number of physicians was 51*375/1261=15.

5.5.2 Sampling technique/procedure

Stratified sampling was used for the quantitative assessment. Following that, study participants were divided into two groups based on their profession: nurses and physicians. The study participants were then chosen from each group using a computer-generated simple random sampling technique. A list of nurses and physicians was used as a sampling frame. The study hospital was chosen through a lottery system.

Purposive sampling was used to select participants for the qualitative assessment portion. Key informants, such as experience staff nurses and physicians were purposefully chosen from among those with first-hand knowledge of inter-professional collaborations.

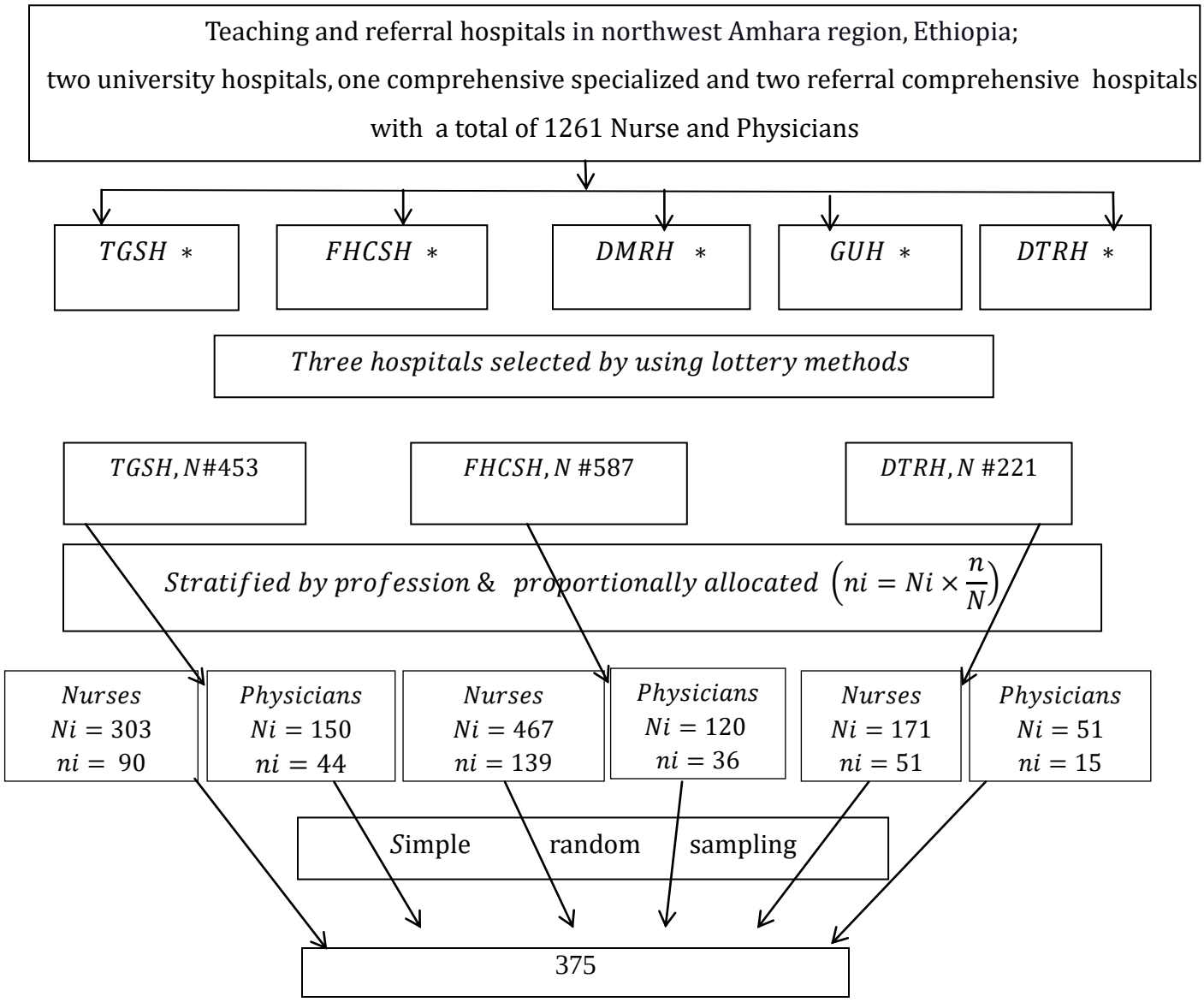

Figure 2: A schematic diagram of the sampling procedure and participant selection for the IPC study among nurses and physicians working in referral and teaching hospitals in the northwest Amhara region of Ethiopia in 2022.

N:B * = Debre Tabor Comprehensive Hospital, Gonder University Hospital, Debre Markose Comprehensive Hospital, Tibebe Ghion Comprehensive Teaching Hospital, Felege Hiwot Comprehensive Specialized Hospital

5.6 Data collection method/tool and procedure

5.6.1 Data collection tool

The quantitative data was collected using English versions of structured, pre-tested, and self-administered nurse-physician collaborative scale questionnaires(48), which contain 27 items divided into three subscales. Sharing patient information items, decision-making process (joint participation in care), and nurse-physician relationship (cooperativeness). The scale was answered using a five-item likert scale (5 = always, 4 = usually, 3 = occasionally, 2 = rarely, and 1 = never), and the total score ranged from 27 to 135. A high score indicates that the nurse-physician collaborative practice is better or more effective. Cronbach's alpha reliability was 0.72(36), in the previous study and 0.94 in this study.

For the qualitative part, was used open ended unstructured guiding English and Amharic version questions was prepared by a review of various related literature(40) and each lasts approximately 12 minutes to 29 minutes. The interview includes general information about the respondents and open-ended questions. All interviews were audio-recorded and transcribed. And other associated factors are adopted from previous literature.

5.6.2 Data collection procedure

For both quantitative and qualitative methods, data was collected for 30 days. Six BSc nurse professionals collected quantitative data throughout the study, which was monitored by three supervisors.

The qualitative data was used as supplementary information for the quantitative part to investigate problems that the quantitative method may not have addressed. The principal investigator used open ended guiding questions to collect qualitative data. Data collection was preceded concurrently embedded and until the information was saturated. The data collectors received one-day training on data collection procedures, techniques, and methods.

5.7 Operational definitions

Collaboration: collective action among professionals that is used to integrate health care services for patients.

Nurse-physician collaboration: the interaction between nurses and physicians, and working for patients and their families to deliver quality care.

Effective nurse-physician collaboration: a high mean score on the nurse-physician collaboration scale (36).

Ineffective nurse-physician collaboration; lower mean score on the nurse-physician collaboration scale (36)

5.8 Study Variables

5.8.1 Dependent variables

Inter-professional collaboration

5.8.2 Independent variables

Socio demographic characteristics

Participants' background characteristics age, sex, marital status, education status, working department, work experience.

Organizational factors

This factors includes; administrative support, leadership style and resources

Professional factors

Professional factors includes; inter-professional education, professional power/role responsibility and individual competency

Interpersonal factors

Interpersonal factors include, motivation, individual attributes, trust and respect and communication.

5.9 Data management and analysis

For the quantitative section, data was entered, checked, and coded in Epi Data version 4.6 before being exported to SPSS version 26 for analysis. For descriptive statistics, means, frequencies, and percentages were computed and displayed using text, tables, and graphs. The Hosmer and Lemshow goodness of fit test, which has a p value of.75, was used to evaluate the model's fitness. Multicollinearity was checked by the variance inflation factor, which showed that it was less than 5% and the correlation was also less than 0.5. A binary logistic regression analysis was conducted to determine the factors affecting inter-professional collaboration as the dependent variable. During the bi-variable analysis, all variables that showed a p value less than 0.25 were chosen as independent variables for the final model. Those with p less than 0.05 in multivariable logistic regression analysis were considered statistically significant.

For the qualitative part, all interviews were audio recorded. Then the audio-recorded data was transcribed and then translated into English. The translated word documents were exported into Atlas.ti (version 7.0.7 software) for analysis. All transcripts were repeatedly read by the investigator, and relevant statements were extracted from the translation, and narrative analysis was applied to sort them out. The process was repeated to make sure that relevant statements were not left out. All the extracted statements were put into themes to make sub-themes.

5.10 Data quality control

The questionnaires were pre-tested in 5% (11 nurses and 8 physicians, a total of 19) of the sample size in Debre Markose Specialized Hospital within the same participants but in a very different study area to test whether the questions were simple, clear, and simply understandable. Corrections and modifications were made to the questionnaire before being applied to the study site. The principal investigator supervised data collection processes and checked for completeness of information and correctness of the data collection procedure. A correction was made as necessary. For the qualitative part, data was collected by the principal investigator at the time of data collection; the interview guide was checked for completeness and consistency of information by the principal investigator.

5.11 Ethical considerations

Ethical clearance was obtained from the ethical review committee of the school of medicine and health science of Bahir Dar University. Letters of cooperation were issued from the research directorate and then delivered to the respective units and hospitals. Each study participant was informed of the required information. That's about the aim of the study, the right to withdraw or not participate in fulfilling the questionnaire, the importance of their participation in this research, and confidentiality was maintained. They were also informed that the data collected was used just for the purpose of this research and that there was no payment to be made for their participation. Finally, consent was obtained before data collection from each participant.

5.12 Dissemination of results

The results of the study will be presented to the Bahir Dar University community, College of Medicine and Health Science, School of Health Science, School of Health Science library, Tibebe Ghion Specialized hospital, Felege-Hiwot Comprehensive Specialized hospital, and Debre Tabor hospital, as well as their respective departments. The findings were also published in a scientific journal.

6. Results

6.1 Socio-demographic characteristics of the respondents

Among the 375 questionnaires that had been distributed, 366 were returned and indicated a 97.6% response rate. Among the total participants, 279(76.2%) nurses and 87(23.8%) physicians were involved in the study. The respondents' average age was 26.14 years (SD = ±5.12), while their median work experience was 5.31 years (SD ± 4.12). Ages 26 to 30 comprise the majority of respondents (83.9%). The majority of participants (47%) had 5 to 10 years of work experience.

Table 1: Socio-demographic characteristics of participants (n =366) in north-west Amhara region, Ethiopia, 2022.

Sociodemographic characteristics	Respondent	No	%
Sex	Male	220	60.1
	Female	146	39.9
Age	<25 years	37	10.1
	26-30 years	307	83.9
	31-35 years	26	7.1
Marital status	Single	157	42.9
	Marriage	203	55.5
	Others(separate, divorce)	6	1.6
Working experience	<5 years	139	38.0
	5-10 years	172	47.0
	11-15 years	35	9.6
	>15 years	20	5.5
Responsibility in your working unit	Staff nurse	259	70.8
	Ward coordinator nurse	15	4.1
	Staff doctors	75	20.5
	Case manager and above	10	2.7
	Lecturer	7	1.9
Level of education	Level iv Diploma nurse	8	2.2
	BSc nurse	258	70.5
	MSc nurse and above	13	3.6
	Medical Doctor	75	20.5
	Specialist and above	12	3.3
Working unit/area	Inpatient	156	42.6
	Intensive care units	76	20.8
	Emergency Department	74	20.2
	Out Patient Department	60	16.4

6.2 Nurse- Physician collaboration

To identify effective and ineffective collaboration, the mean score for each nurse-physician collaboration measuring item was calculated. According to this, the sharing of patient information subscale showed 196 (53.6 %) were satisfied by nurse-physician collaboration. Joint participation and nurse-physician relationship, 202(55.2 %) and 211(57.7 %) were satisfied by nurse-physician collaboration, respectively.

On this scale, specific item, nearly two-thirds of participants, 232 (63.4 %), indicated that nurses and physicians discuss a patient's problems. The majority of respondents (229) stated that nurses and physicians greet each other every day (62.6 %). On the other hand, only 82 (22.4 %) of respondents say nurses and physicians discuss whether to continue a treatment that isn't having an effect. And 92 (26.7 %) of participants say nurses and physicians can easily talk about things other than work.

The overall, effective inter-professional collaboration between nurses and physicians was showed below.

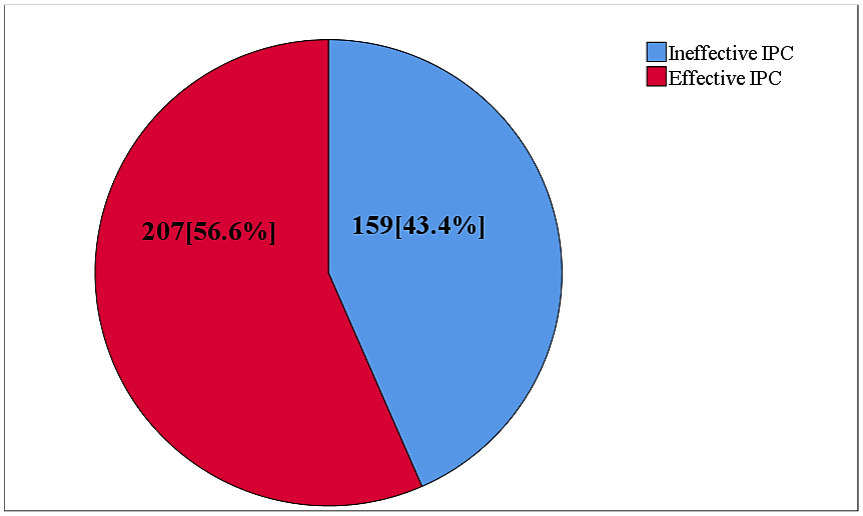

Figure 3: level of inter-professional collaboration among nurse-physician in north-west Amhara region, Ethiopia, 2022.

Table 2: Response of participants in interprofessional collaboration among nurse-physician collaborative measurement scale (n = 366) in north-west Amhara region, Ethiopia, 2022.

Question	R	N no	R no	ST no	U no	A no	mean
The nurses and the physicians exchange physicians opinions to resolve problems related to patient cure/care	N	13	28	70	88	80	
	P	11	13	16	26	21	3.62
In the event of a disagreement about the future direction of a patient's care, the nurses and the physicians hold discussion to resolve differences of opinion	N	28	40	90	73	48	
	P	14	17	15	23	18	3.24
The nurses and the physicians discuss whether to continue a certain treatment when that treatment is not having the expected effect	N	56	77	74	45	27	
	p	30	30	17	8	2	2.54
When a patient is to be discharged from the hospital, the nurses and the physician discuss where the patient will continue to be treated and the lifestyle regimen the patient needs to follow	N	31	62	71	65	50	
	P	15	24	19	21	8	3.07
When challenged by a difficult patient the nurses and the physicians discuss how to handle the situation	N	18	36	73	92	60	
	P	5	19	17	22	24	3.49
The nurses and the physicians discuss the problems a patient has	N	22	25	63	84	85	
	P	4	6	14	31	32	3.73
The nurses and the physicians together consider their proposals about the future direction of patient care	N	33	64	84	72	26	
	P	13	30	19	15	10	2.93
In the event a patient develops unexpected side effects or complication the nurses and the physicians discuss countermeasures	N	22	43	63	90	61	
	P	15	14	11	28	19	3.40
In the event a patient no longer trusts a staff member, the nurses and the physicians try to respond to the patient in a consistent manner to resolve the situation	N	20	34	81	109	35	
	P	10	16	13	27	21	3.38
The future direction of a patient’s care is based on a mutual exchange of opinions between the nurses and the physicians	N	29	54	70	88	38	
	P	16	28	14	20	9	3.08
The nurses and the physicians seek agreement on signs that a patient can be discharge	N	29	39	54	81	76	
	P	6	14	18	24	25	3.50
The nurses and the physicians discuss how to prevent medical care accidents	N	23	37	61	78	80	
	P	3	12	14	32	26	3.60

Table two cont.……...

The nurses and the physicians all know what has been explained to a patient about his/her condition or treatment	N	17	64	94	70	34	
	P	15	34	15	17	6	3.01
The nurses and the physicians share information to verify the effects of nurses treatment	N	26	41	67	83	62	
	P	13	26	10	24	14	3.31
The nurses and the physicians have the same understanding of the future direction of the patient's care	N	38	68	79	62	32	
	P	23	28	20	12	4	2.80
The nurses and the physicians identify the key person in a patient's life	N	20	29	57	96	77	
	P	1	9	16	30	31	3.72
In the event of a change in treatment plan, the nurses and the physicians have a mutual understanding of the reason for the change	N	26	48	67	67	71	
	P	16	13	11	30	17	3.35
The nurses and the physicians check with each other concerning whether a patient has any signs of side effects or complications	N	14	44	66	87	68	
	P	12	15	10	36	14	3.48
The nurses and the physicians share information about a patient's reaction to explanations of his/her disease status and treatment methods	N	21	50	84	76	48	
	P	16	15	20	27	9	3.21
The nurses, the physicians, and the patient have the same understanding of the patient's wish for cure and care	N	43	69	61	65	41	
	P	15	30	19	13	10	2.90
The nurses and the physicians share information about a patient's level of independence in regard to activities of daily living	N	18	50	84	83	44	
	P	14	22	20	25	6	3.20
The nurses and the physicians can easily talk about topics other than topic related to work	N	42	79	78	57	23	
	P	22	30	17	12	6	2.70
The nurses and the physicians can freely exchange information or opinions about matters related to work	N	25	47	82	81	44	
	P	11	17	13	34	12	3.25
The nurses and the physicians show concern for each other when they are very tired	N	32	79	72	66	30	
	P	14	21	25	22	5	2.91
The nurses and the physicians help each other	N	19	61	72	65	62	
	P	9	18	22	29	9	3.28
The nurses and the physicians greet each other every day	N	15	31	64	91	78	
	P	4	8	15	28	32	3.72
The nurses and the physicians take into account each other's schedule when making plans to treat a patient together	N	32	45	85	71	46	
	P	17	18	14	26	12	3.14

N: B, A=Always, U=Usually, ST=sometimes, R=Rarely, N=Never, no=number/frequency, N=Nurse, P=physician, R=respondent

6.3 Organizational factors

According to the findings on organizational factors for nurse-physician collaboration, 194 (53 %) of participants are satisfied with organizational support for interprofessional collaboration. Two-thirds of the participants (67.5 %) in that specific item reported that they were dissatisfied with the extent to which the necessary finance to support interprofessional collaboration was provided. On the other hand, most respondents, 243 (66 %), were satisfied with their ability to effectively plan patient-centred care, and interprofessional collaboration is highly valued (228, 62.3 %).

A qualitative study finding also indicated that professionals' poor recognition from the organization for those workers was another reason explained for the ineffective nurse physician collaboration.

The 26-year old physician said that and explained the problem as follows:

> "*Recognizing the problem is half the solution; most solutions are related to the institution ... providing medical resources and materials; providing training that strengthens professional cooperation; retaining and promoting hard workers; preparing relevant documents and guidelines; and creating compliance and accountability according to the rules and regulations."* (Physician 02)

Table 3: Response of participants in inter-professional collaboration in organizational factors (n = 366) in north-west Amhara region, Ethiopia, 2022.

Question	R	SD no	D no	N no	A no	SA no	Mean
Does administration has proofed to be supportive whenever we having interprofessional collaboration group	N	47	68	47	82	35	
	P	21	27	11	16	12	2.89
Does administration seeks for interprofessional team participation when dealing with issue concerning our welfare	N	43	83	51	70	32	
	P	21	25	10	16	15	2.85
I always feel that effective interprofessional groups have a clear and defined leader	N	17	53	47	114	48	
	P	12	22	9	30	14	3.37
The interprofessional group leader sometimes influences what the other professional do	N	15	59	42	118	45	
	P	12	24	6	32	13	3.35
The interprofessional group leaders apply values and the principles of team participatory	N	24	69	50	88	48	
	P	14	24	4	29	16	3.21
Our interprofessional groups has the ability to plan patient-centered care effectively	N	16	37	43	96	87	
	P	7	12	8	23	37	3.74
Interprofessional groups exist because the county has decided that professionals should collaborate	N	15	50	72	109	33	
	P	11	23	7	38	8	3.28
The organizational structures in which our interprofessional team operates promotes collaborative interactions	N	33	74	48	89	35	
	P	13	28	7	26	13	3.05
It is common that interprofessional collaboration is highly respected	N	23	47	37	114	58	
	P	5	20	6	35	21	3.50
We are encouraged to promote new ways of working in interprofessional groups	N	24	80	46	84	45	
	P	20	18	10	25	14	3.11
One part of the key to successful interprofessional collaboration can be found in the implementation of communication system in the institution	N	13	42	42	108	74	
	P	13	9	5	34	26	3.65
Our administration provides the necessary finance that support interprofessional collaboration	N	73	66	52	54	34	
	P	27	26	3	26	5	2.63

N: B SD= strongly disagree, D=disagree, N=neutral, A=agree, SA=strongly agree no= number/frequency, R=respondent, N= nurse, P=physician

6.4 Professional factors

Results on the professional factors showed that most respondents (202, 55.2%) reported that their collaboration was good for interprofessional collaboration. Of those, two thirds (66.7%) of respondents stated that professionals communicate in a responsive and responsible manner that supports a team approach. Furthermore, most participants (227, 62.2%) report that laws and regulations are well required and known within the groups. On the other hand, 237 (64.75%) participants feel that other professionals have expectations that are contradictory to the inter-professional groups. And again, 222 (60.6%) of the participants don't have an internal education day where team members would present and teach one another about different clinical topics.

Findings from this qualitative study revealed that poor communication among professionals is the most common reason for ineffective collaboration.

> A 30-year-old BSc nurse said that
>
> *Senior physicians are rarely available, which I consider to be a major issue; the majority of the work is done by residents and interns... The nurses on this unit are familiar with the medication and ask questions; the physicians do not explain medication changes or notify the nurses when a new prescription is available. This is a major problem caused by a lack of collaboration among professionals as a result of poor communication."* (Nurse-03)

Most participants in this study stated that inequality and undermine the roles of nurses' result in collaboration less effective.

A 29-year-old physician (P03) said that;

"…….Behavioural issues, a lack of professionalism (doctors underestimating nurses and their work), dissatisfaction with their profession, and professional negligence are issues with the practitioner. This makes collaboration more challenging." (Physician 03)

Table 4: Response of participants in inter-professional collaboration on professional factors (n = 366) in north-west Amhara region, Ethiopia, 2022.

Question	R	SD no	D no	N no	A no	SA no	Mean
Do have internal education day where team members would present and teach each other about different clinical topics	N	66	78	37	76	22	2.79
	p	20	16	5	22	24	
My pre-service training and continuous professional development (CPD) have prepared me to collaborate effectively with other professional	N	43	55	49	102	30	3.10
	p	16	16	9	30	16	
I work in harmony with medical professional of other disciplines	N	27	38	39	123	52	3.48
	p	11	13	5	40	18	
I always communicate with professionals in health and other fields in a responsive and responsible manner that supports a team approach	N	21	35	34	119	70	
	p	8	19	5	31	24	3.62
Some health care professionals dominate the inter-professional meetings with their professional viewpoints	N	24	60	49	94	52	
	p	8	33	11	21	14	3.25
Occasionally inter-professional groups do not work because some health care professionals dominate the meetings	N	23	56	67	85	48	
	p	12	27	11	29	8	3.20
I always feel that other professionals have expectations that are contradictory to mine when I work in inter-professional groups	N	37	76	62	74	30	2.87
	p	16	35	11	16	9	
I always feel that my area of responsibility is clearly defined when I work in inter-professional groups	N	34	67	44	97	37	
	p	16	22	8	34	7	3.08
Laws and regulations are well stipulated and known in inter-professional groups	N	23	37	49	96	74	
	p	8	17	5	31	26	3.58
Every medical professional knows the area of responsibility of the other professionals	N	19	54	39	104	63	
	p	9	20	8	27	23	3.47

N: B SD= strongly disagree, D=disagree, N=neutral, A=agree, SA=strongly agree no= number/frequency, R=respondent, N=nurse, P=physician

6.5 Interpersonal factors

According to the results of the interpersonal factors, 193 (52.7 %) of respondents said their collaboration was good for interprofessional collaboration. The majority of respondents (269, or 73.5 %) believe that developing mutual trust at the individual and professional levels promotes collaboration. Two-thirds (72.67 %) of the participants state that inter-professional collaboration usually necessitates responsiveness. On the contrary, 150 respondents (40.9 %) did not receive relevant feedback on their contributions within the inter-professional groups involved.

According to the majority of participants in this qualitative study, some personal factors influence the degree or level of nurse-physician collaboration.

A 28-year-old nurse (N05) said that

…"Individual differences of opinion, personal disagreement, and professional inequality, including professional level, knowledge, skills, and attitudes, can all have a negative impact on professional collaboration." (Nurse 05)

Table 5: Response of participants in inter-professional collaboration on inter-personal factors (n = 366) in north-west Amhara region, Ethiopia, 2022

Question	R	SD no	D no	N no	A no	SA no	Mean
Does I get relevant feedback on my contributions in the interprofessional groups involved	N	54	63	50	77	35	
	P	19	22	8	23	15	3.20
Is there is always good communication in inter-professional groups I participate in	N	31	54	45	106	43	
	P	16	17	7	33	14	3.24
Does I experience personal growth when I work in inter-professional groups	N	23	68	48	97	43	
	P	11	27	3	35	11	3.21
Does I get to use my creativity and imagination when I work in inter-professional groups	N	28	60	45	106	40	
	P	13	23	9	32	10	3.20
Is inter-professional collaboration calls for responsiveness/openness of mind	N	17	25	41	99	97	
	P	1	12	4	37	33	3.88
Does Recognition and respect of the contributions of other professionals promotes inter-professional collaboration	N	11	24	43	107	94	
	P	6	16	5	27	33	3.86
Building mutual trust at the individual and professional levels promote inter-professional collaboration	N	8	30	34	113	94	
	P	8	12	5	31	31	3.87
Some professionals act in ways that make inter-professional collaboration difficult	N	25	47	60	89	58	
	P	16	22	9	22	18	3.31

N: B SD= strongly disagree, D=disagree, N=neutral, A=agree, SA=strongly agree no= number/frequency, N=nurse, P=physician

6.6 Factors associated with inter-professional collaboration

Factors affecting inter-professional collaboration like sex, level of education, working unit, organizational factors, professional factors, and inter-personal factors were statistically significant by bivariate logistic regression. In the final model of multivariable analysis, organizational, professional, and interpersonal factors were independently associated with ineffective interprofessional collaboration.

Among those participants who had good organizational support for collaboration, the likelihood of effective inter-professional collaboration was increased by 5.6 times as compared to those who had poor organizational support [AOR = 5.622, CI: (3.237-9.766), P = 0.000].

The odds of effective inter-professional collaboration among participants who were satisfied by professional support were 2.4 times higher compared to that of their counterparts (who weren't satisfied by professional support) [AOR = 2.433, CI: (1.389-4.259), P = 0.002].

Regarding the interpersonal factors, the participants who had good interpersonal support for collaboration were more than two times more likely to have effective collaboration as compared to those who had poor interpersonal support for collaboration[AOR = 2.148, 95% CI (1.237–3.731), P = 0.007].

Table 6: Regression output for factors associated with inter-professional collaboration among nurses and physicians (n = 366) in north-west Amhara region, Ethiopia, 2022.

Variable		Inter-professional collaboration		COR 95% CI	AOR 95 % CI	p valve
		effective	ineffective			
sex	Male	114(31.1%)	106(29 %)	.613 (.399-.941)	.651 (.384-1.104)	.111
	Female	93(25.4%)	53(14.5%)	1*		
Occupational status	Staff nurse	150(41 %)	109(29.8%)	.153 (.019-1.22)	.087 (.004-1.726)	.109
	Ward coordinator	6(1.6%)	9(2.5%)			
	Staff doctors	39(10.7%)	36(9.8%)			
	Case manager	9(2.5%)	1(0.3%)	1*		
	Lecturer	3(0.8%)	4(1.1%)			
Level of education	Diploma nurse	4(1.1%)	4(1.1%)			
	BSc nurse	149(40.7%)	109(29.8%)			
	MSc and above	5(1.4%)	8(2.2%)	.208 (.037-1.16)	1.323 (.163-10.74)	.793
	Medical Doctor	40(10.9%)	35(9.6%)			
	Specialist and above	9(2.5%)	3(0.8%)	1*		
Working unit/area	Inpatient	95(26.0%)	61(16.7%)	1*		
	Intensive care units	41(11.2%)	35(9.6%)			
	Emergency Department	42(11.5%)	32(8.7%)			
	Out Patient Department	29(7.9%)	31(8.5%)	.601 (.330-1.09)	.809 (.374-1.75)	.591
Organizational support	Satisfied	158(43.2%	36(9.8%)	0.091 (0.056-0.418)	5.622 (3.237-9.766)	.000**
	Unsatisfied	49(13.4%)	123 (33.6%)	1*		
Professional support	Good	154(42.1%)	48(13.1%)	0.149 (0.094,0.236)	2.433 (1.389-4.259)	.002**
	Poor	53(14.5%)	111(30.3%)	1*		
Interpersonal support	Good	146(39.9%)	47(12.8%)	0.175 (0.111,0.276)	2.148 (1.237-3.731)	.007**
	Poor	61(16.7%)	112(30.6%)	1*		

N: B *=reference groups, **= p<0.05

7. Discussion

This study found that more than half of nurses and physicians (56.6 %) had effective inter-professional collaboration. The findings of this study were also consistent with those of a previous study conducted in the Tigray region (54.3 %)(31) and Italy (51.5%)(33).

This study's findings are inconsistent (higher than) with previous studies conducted in Bahir Dar (41.2%)(29), Addis Ababa (42.7%(30) and Egypt (39%)(35). Differences in study settings and sample size could explain the disparity. It also contradicts previous studies conducted in Jimma (66.7%) (36), the United States (70%)(32), and China (77.4%)(34). Different study contexts, professional respect and attitudes, country development levels, and variations in professional development and curriculum may have an impact. The majority of findings in our context suggest that the level of collaboration is low and that special attention is required to improve the quality of patient care, outcomes, and satisfaction.

This study's results show that participants who were satisfied with organizational support for collaboration significantly increased their level of effective collaboration. This result was also supported by this qualitative study. This result is in line with earlier studies conducted in Tigray(31), Kenya (47), Nigeria(46), Iran(41) Canada(49), Norway(50) and the United States(51). Inter-professional cooperation has thus been recognized as an important method for addressing a variety of societal health issues. Organizational support is necessary to integrate health care services, provide high-quality patient care, and enhance patient outcomes(46, 51).

According to the findings of this study, good professional support for inter-professional collaboration is related to increased collaboration. This finding was also consistent with previous research in Kenya(47), Nigeria(52), Lebanon(45) Singapore(40) and Iran (41). Furthermore, current and future challenges necessitate more integrated interprofessional collaboration; thus, engaging both professionals in practice, conducting advanced research, and providing strong evidence-based practice is critical to improving professional support for collaboration(53, 54).

In addition, those study participants who had good interpersonal factors for collaboration were more effective as compared to those who had poor support. This finding is in line with previous research from Kenya(47) Canada(49), and the USA (51).

In this qualitative section, insufficient professional recognition was the main cause of ineffective collaboration. This outcome is consistent with the research from (40, 55, 56).

One of the factors identified in this study that could lead to ineffective collaboration was a lack of medical supplies in their workspace. A similar study was found in Dare Dawa(56).

Lack of professionalism was also identified as a predictor of ineffective collaboration. The outcome is in line with research from Dare Dawa(56) and Singapore(40). This may be due to how professional inequality, such as undervaluing nurses, placing blame, and showing disrespect for their profession toward one another, has an impact on attitudes toward one another and, as a result, makes collaboration between the two professionals more challenging(55).

8. Strengths and limitations of the study

8.1 Strengths

The study's mixed-method approach, which included both quantitative and qualitative components, was used, and an appropriate size was gained.

8.2 Limitations

Respondent bias could make the study's findings vulnerable.

9. Conclusion

The majority of participants in this study had effective inter-professional collaboration. According to the study's findings, a number of factors, including organizational, professional, and interpersonal ones, were found to be significantly related to collaboration.

The qualitative findings of this study identified three group themes (the status of collaboration, factors hindering collaboration and factors facilitating collaboration) and nine subthemes as barriers for collaboration that result in ineffective interprofessional collaboration.

Themes	Subthemes
The status of professional collaboration between nurses and physicians	poor nurse-physician collaboration
Hindrances to professional collaboration between nurses and physicians	Lack of supplies and medical equipment
	Poor recognition and management system in the hospitals
	Poor communications among professionals
	Professional inequality and undermine each other/ lack of professionalism
	Failure to commit professional obligation/ failure to fulfill roles and responsibilities
Facilitates professional collaboration between nurses and physicians	Professional respect and equality
	Develop and implement institutional rules and guidelines
	Professional career and development

10. Recommendation

Based on the findings of this study, the following recommendations are made:

To nurses and physicians:

Rather than disrespecting and undermining one another, nurses and physicians collaborate to create environments that are conducive to their collaboration.

They admit responsibility and work collaboratively and respectfully to improve their approach.

To organizational administrators and leaders:

The institution solves the gaps in professional understanding towards nurse-physician collaboration by creating opportunities for open discussion, giving training, and sharing knowledge. This may create an ongoing awareness of the requirement for professional collaboration.

The institution creates a conducive and safe working environment for professionals through ongoing training, seminars, and workshops on the importance of inter-professional collaboration.

The institution increases support for professional growth, motivation, and recognition for professionals; increases professional satisfaction; mutual understanding of roles; and enables them to develop a sense of collaborative practice skills.

To policy maker:

Establish and build a relationship between nurses and physicians who are respectful of one another's professions. This can be achieved by integrating interprofessional education into their education systems to promote the development of a mutually supportive relationship between nurses and physicians and to better understand the matching roles played by each profession.

They develop programs that encourage and promote inter-professional education that help them grasp their own professional identity while gaining an understanding of other professionals' roles. This helps them to have higher collaboration while in their work environment.

To future researchers:

Future researchers are recommended to conduct a mixed study on the nursing round to have a detailed understanding of the problem by including experience from both sides (nurses and physicians).

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12. Appendixes

12.1 English version information sheet and questionnaire

12.1.1 Information sheet

Bahir Dar University, Collage of Medicine and Health Sciences, School of Health Sciences, Department of Pediatrics and Child health Nursing graduate studies. A study is being prepared to collect data on inter-professional collaboration between nurses and physicians, as well as associated factors, in referral and teaching hospitals in northwest, Amhara region Ethiopia 2022.

Good Morning/afternoon greetings

Hello! I'm _____ here to day gather data on interprofessional collaboration among nurses and physicians, as well as associated factors, in referral and teaching hospitals in the northwest Amara region of Ethiopia. This study is being conducted by Tadele Degu, an MSc nurse student in the department of pediatrics and child health nursing postgraduate program.

Objective of the study: - the objective of this study is to assess inter-professional collaboration among nurses and physicians, as well as associated factors, in referral and teaching hospitals in the northwest Amara region of Ethiopia. You're requesting to participate in this study and to respond honestly. This interview is about your patient-care collaboration and the impact of nurse-physician collaboration on patient outcomes.

Benefit of the study: - there is no direct advantage to the study's participants. The findings of this study, on the other hand, will aid in identifying the challenges and problems associated with nurse-physician collaboration

Confidentiality of the study: - your name will not be written on this form, and it will never be used in connection with any information you provide, and this interview will last no more than 20 to 25 minutes.

Risk of the study: - the probable risk linked with participating in this study is the amount of time spent filling out the questionnaire. All of the information you provide will be kept totally secret.

Right of the participant: - Your participation is entirely voluntary, and you are not forced to answer any questions that you do not wish to answer. If the inquiry makes you uncomfortable, you have the freedom to ignore it at any time. Please contact the primary investigator if you have any concerns about this study or would like to know the results after it is completed.

Address of the principal investigator: - Mr. Tadele Degu Cell phone: +251918242149

Address of My Advisor: - Eden Amsalu e-mail:edenamsalu@gmail.com,

Are you willing to participate in this study? Yes, Continue No Return the paper

12.1.2 Consent form

I agree to participate in the study titled "Study of interprofessional collaboration between nurses and physicians and associated factors" at a selected public referral and teaching hospital by signing this document. The purpose of this study, according to what I've heard, is to assess nurses' and physicians' collaboration, as well as the impact of nurse-physician collaboration on patient outcomes in referral and teaching hospitals in Ethiopia's northwest Amara region. I am informed that my participation in this study is entirely voluntary. My answers to the questions will not be shared with anyone else, and no results from this study will ever mention my name. I've also been told that my participation or on-participation, as well as my refusal to answer questions, will have no effect on me. I understood that there are no risks associated with participating in this study. If I have any queries concerning the study or my rights as a study participant, I understand that Tadele Degu is the person to contact.

Results of questionnaire 1= Completed 2= Refused 3= partially completed

Identification

Questionnaire no_____Supervisor's name_____ signature_____

12.1.3 Questionnaire

This questionnaire has its own set of instructions. Please read each question carefully and answer honestly to each one. If you leave any item blank, it will have an impact on the study. Please check that you have answered to all of the items.

I appreciated your honest responses and cooperation.

Part One:- **Socio demographic characteristics**				
s.no	Questions	Response	Code	Skip to next
101	Sex	1. Male 2. Female		
102	Age in years	_____ years old		
103	Marital status	1. Single 2. Married 3. Divorced 4. Widowed 5. Separated		
104	Length of service in (experience)	1. <5 years 2. 5-10 years 3. 11-15 years 4. >15 years		
105	What is your title in your working unit	1. Staff nurse 2. Head nurse 3. Matron/chief nurse 4. Staff General practitioner 5. Case manager and above 6. Lecturer		
106	Level of education	1. Diploma nurse 2. BSc nurse 3. MSc nurse and above 4. General practitioner 5. Specialist 6. Subspecialist and above		

107	Area of work	1. Inpatient 2. Critical care unit 3. Emergency unit 4. Out Patient Department		

Part two: Nurse-physician collaborative scale

	Question	Always=5	Usually=4	Sometimes=3	Rarely=2	Never=1
201	The nurses and the physicians exchange physicians opinions to resolve problems related to patient cure/care					
202	In the event of a disagreement about the future direction of a patient's care, the nurses and the physicians hold discussion to resolve differences of opinion					
203	The nurses and the physicians discuss whether to continue a certain treatment when that treatment is not having the expected effect					
204	When a patient is to be discharged from the hospital, the nurses and the physician discuss where the patient will continue to be treated and the lifestyle regimen the patient needs to follow					
205	When confronted by a difficult patient the nurses and the physicians discuss how to handle the situation					
206	The nurses and the physicians discuss the problems a patient has					
207	The nurses and the physicians have the same understanding of the					
208	In the event a patient develops unexpected side effects or complications the nurses and the physicians discuss countermeasures					
209	In the event a patient no longer trusts a staff member, the nurses and the physicians try to respond to the patient in a consistent manner to resolve the situation					
210	The future direction of a patient’s care is based on a mutual exchange of opinions between the nurses and the physicians					

211	The nurses and the physicians seek agreement on signs that a patient can be discharged					
212	The nurses and the physicians discuss how to prevent medical care accidents					
213	The nurses and the physicians all know what has been explained to a patient about his/her condition or treatment					
214	The nurses and the physicians share information to verify the effects of nurses treatment					
215	The nurses and the physicians have the same understanding of the future direction of the patient's care					
216	The nurses and the physicians identify the key person in a patient's life					
217	In the event of a change in treatment plan, the nurses and the physicians have a mutual understanding of the reason for the change					
218	The nurses and the physicians check with each other concerning whether a patient has any signs of side effects or complications					
219	The nurses and the physicians share information about a patient's reaction to explanations of his/her disease status and treatment methods					
220	The nurses, the physicians, and the patient have the same understanding of the patient's wish for cure and care					
221	The nurses and the physicians share information about a patient's level of independence in regard to activities of daily living					
222	The nurses and the physicians can easily talk about topics other than topic related to work					
223	The nurses and the physicians can freely exchange information or opinions about matters related to work					
224	The nurses and the physicians show concern for each other when they are very tired					
225	The nurses and the physicians help each other					
226	The nurses and the physicians greet each other every day					

227	The nurses and the physicians take into account each other's schedule when making plans to treat a patient together					
Part three: Organizational factors						
	Question	Strongly Agree =5	Agree=4	Neutral =3	Disagree=2	Strongly disagree=1
301	Our administration has proofed to be supportive whenever we having interprofessional collaboration group.					
302	Our administration seeks for interprofessional team participation when dealing with issue concerning our welfare.					
303	I always feel that effective interprofessional groups have a clear and defined leader					
304	The interprofessional group leader sometimes influences what the other professionals do					
305	The interprofessional group leaders apply values and the principles of team democratic leadership style.					
306	Our interprofessional groups has the ability to plan patient-centered care effectively					
307	Interprofessional groups exist because the county has decided that professionals should collaborate					
308	The organizational structures in which our interprofessional team operates promotes collaborative interactions					
309	It is common that interprofessional collaboration is highly valued					
310	We are encouraged to promote new ways of working in interprofessional groups					
311	One part of the key to successful interprofessional collaboration can be found in the implementation of Information, Communication & Technology (ICT)					

312	My employer provides the necessary finance that support interprofessional collaboration					
part four: Professional-related factors						
401	We do have internal education day where team members would present and teach each other about different clinical topics					
402	My pre-service training and continuous professional development (CPD) have prepared me to collaborate effectively with other professionals					
403	I work in harmony with medical professional of other disciplines					
404	I always communicate with professionals in health and other fields in a responsive and responsible manner that supports a team approach					
405	Some health care professionals dominate the inter-professional meetings with their professional viewpoints					
406	Occasionally inter-professional groups do not work because some health care professionals dominate the meetings					
407	I always feel that other professionals have expectations that are contradictory to mine when I work in inter-professional groups					
408	I always feel that my area of responsibility is clearly defined when I work in inter-professional groups					
409	Laws and regulations are well stipulated and known in inter-professional groups					
410	Every medical professional knows the area of responsibility of the other professionals					
part five: Interpersonal Factors						
501	I get relevant feedback on my contributions in the inter-professional groups I participate in					
502	There is always good communication in inter-professional groups I participate in					
503	I experience personal growth when I work in inter-professional groups					
504	I get to use my creativity and imagination when I work in inter-					

	professional groups					
505	Inter-professional collaboration calls for openness of mind					
506	Recognition and respect of the contributions of other professionals promotes inter-professional collaboration					
507	Building mutual trust at the individual and professional levels promote inter-professional collaboration.					
508	Some professionals act in ways that make inter-professional collaboration difficult					

Part 6: in depth interview

Section one: sociodemographic characteristics

1.1 Name (_____code)

1.2 Sex_____

1.3 Age_____

1.4 Marriage_____

1.5 Profession _____

1.6 Responsibility/position _____

1.7 Service/experience_____

Section two: situation of interprofessional collaboration

Theme 1: Interprofessional collaboration

1.1 How did you feel about the situation of collaboration between nurses and physicians?

1.2 What is your experience of interprofessional collaboration in your ward?

Theme 2: Factors affect interprofessional collaboration

2.1 What do you think promotes interprofessional collaboration?

2.2 What do you think inhibits interprofessional collaboration?

Theme 3: importance and effective of collaboration

3.1 How important and effective do you think collaboration between nurses and physicians

3.3 What significance do you think interprofessional collaboration has in patient safety work, for professionals and institution?

3.4 What is needed for interprofessional collaboration to develop in a good way?

12.2 በአማርኛ የተዘጋጁ መረጃ እና መጠይቆች

12.2.1 የመረጃ ወረቀት

ባህር ዳር ዩኒቨርሲቲ፣የህክምና እና ጤና ሳይንስ ኮላጅ፣የጤና ሳይንስ ትምህርት ቤት፣የህፃናት ህክምና እና የህጻናት ጤና ነርስ ትምህርት ክፍል። ሰሜን ምዕራብ አማራ ክልል በነርሶች እና ሐኪሞች መካከል ያለው የባለሙያዎች ትብብር ግምገማ እና ተያያዥ ጉዳዮች ላይ መረጃ ለመሰብሰብ የተዘጋጅ ፣ አማር ክልል ፣ሰሜን ምዕራብ ኢትዮጵያ፣ 2014 ዓ.ም

እንደምን አደሩ/ ደህና

ሰላም ጤና ይስጥልኝ! ስሜ _____ በአማራ ክልል ሰሜን ምዕራብ ኢትዮጵያ በነርሶች እና ሐኪሞች መካከል ያለው የባለሙያዎች ትብብር ግምገማ እና ተያያዥ ጉዳዮች ላይ መረጃ ለመሰብሰብ ነው የመጣሁት። ይህንን ጥናት የሚያካሂደው በሕፃናት ሕክምና ክፍል እና የሕፃናት ጤና ነርስ ድህረ ምረቃ መርሃ ግብር የማስተርስ ነርስ ተማሪ የሆነው ታደለ ደጉ ነው።

የጥናቱ ዓላማ፡ - የዚህ ጥናት ዓላማ አማራ ክልል፣ ሰሜን ምዕራብ ኢትዮጵያ፣ የነርስና ሐኪም ትብብርን መገምገም ነው። በዚህ ጥናት ላይ ለመሳተፍ እና እውነተኛ ምላሽ ለመስጠት እየጠየቁ ነው። ይህ ቃለ መጠይቅ በትብብርዎ ላይ ያተኩራል በታካሚ እንክብካቤ እና የነርሶች ሐኪም ትብብር በታካሚው ውጤት ላይ።

የጥናቱ ጥቅም: - የጥናቱ ተሳታፊ ቀጥተኛ ጥቅም የለም ። ይሁን እንጂ የዚህ ጥናት ውጤት ከነርስ-ሐኪም ትብብር ጋር የተያያዙ መሰናክሎችን/ችግሮችን ለመለየት ይረዳል

የጥናቱ ምስጢራዊነት፡ - ስምዎ በዚህ ቅጽ አይጻፍም እና ከምትነግሩን ማንኛውም መረጃ ጋር በተያያዘ በጭራሽ ጥቅም ላይ አይውልም እና ይህ ቃለ መጠይቅ ለማጠናቀቅ ቢበዛ ከ20 እስከ 25 ደቂቃ ሊወስድ ይችላል።

የጥናቱ ስጋት፡ - መጠይቁን ለመመላት ከጠፋው ጊዜ በስተቀር በዚህ ጥናት ውስጥ ከመሳተፍ ጋር የተያያዘ ምንም አይነት አደጋ የለም። በእርስዎ የተሰጡ ሁሉም መረጃዎች ሚስጥራዊ ይሆናሉ።

የተሣታፊው መብት፡ - ተሳትፎዎ በፈቃደኝነት ላይ የተመሰረተ ነው እና መልስ ለመስጠት ለማትፈልጉት ማንኛውንም ጥያቄ ለመመለስ አይገደዱም። በጥያቄው ላይ ምቾት የማይሰማዎት ከሆነ በፈለጉት ጊዜ መጣል መብትዎ ነው። ይህንን ጥናት በተመለከተ ጥያቄዎች ካሉዎት ወይም ከተጠናቀቀ በኋላ ውጤቱን ማሳወቅ ከፈለጉ እባክዎን ዋናውን መርማሪ ያነጋግሩ።

የዋና መርማሪው አድራሻ፡- አቶ ታደለ ደጉ ስልክ፡ +251918242149

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በዚህ ጥናት ለመሳተፍ ፈቃደኛ ኖት? አዎ ይቀጥሉ አይ ወረቀቱን ይመልሱ

12.2.1 የፍቃድ ቅጽ

ይህንን ሰነድ በመፈረም በጥበበ ስፔሻላይዝድ ሆስፒታል ውስጥ የሚሰራው "በነርሶች እና ሀኪሞች መካከል ያለው የባለሙያዎች ትብብር ግምገማ እና ተያያዥ ጉዳዮች ላይ ለመሳተፍ ፈቃደኛ ነኝ። የዚህ ጥናት አላማ ነርሶችን እና ሀኪሞችን በመካከላቸው ትብብር እና የነርስ-ሐኪም ትብብር በጥበበ ግዮን ስፔሻላይዝድ ሆስፒታል ውስጥ በታካሚው ውጤት ላይ ያለውን ተጽእኖ ለመገምገም እንደሆነ ተነግሮኛል። በዚህ ጥናት ውስጥ መሳተፍ ሙሉ በሙሉ በፈቃደኝነት እንደሆነ ተረድቻለሁ። ለጥያቄዎቹ የእኔ መልሶች ለሌላ ሰው እንደማይሰጡ ተነግሮኛል እናም ምንም የዚህ ጥናት ዘገባ በምንም መልኩ ማንነቱን አሳይቷል። የእኔ ተሳትፎ ወይም አለመሳተፍ ወይም ለጥያቄዎች መልስ አለመስጠት በእኔ ላይ ምንም ተጽእኖ እንደሌለው ተነግሮኛል. በዚህ ጥናት ውስጥ መሳተፍ አደጋዎችን እንደማያጠቃልል ተረድቻለሁ። ስለ ጥናቱ ወይም የጥናት ተሳታፊ ስለመሆኔ ስለመብቴ ጥያቄዎች ካሉኝ ታደለ ደጉ ተጠሪ እንደሆነ ተረድቻለሁ።

የመጠይቁ ውጤቶች 1= በሙሉ የተሞላ/ተጠናቀቀ 2= በከፊል የተጠናቀቀ/የተሞላ 3= ያልተመላ/ውድቅ የተደረገ

መለየት

መጠይቁ ቁጥር _____ የተቆጣጣሪ ስም _____ ፊርማ _____

12.2.2 መጠይቅ

ይህ መጠይቅ የራሱ መመሪያዎች አሉት። እባክዎ እያንዳንዱን ጥያቄ በጥንቃቄ ያንብቡ እና ለእያንዳንዱ ጥያቄ ትክክለኛ ምላሽ ይስጡ። ምንም ዓይነት ምላሽ ሳይኖር ማንኛውንም ነገር ችላ ካልዎት በጥናቱ ላይ ተጽእኖ ይኖረዋል ስለዚህ፣ እባክዎ ለሁሉም ጥያቄዎች ምላሽ እንደሰጡ ያረጋግጡ።

ለእውነተኛ ምላሽዎ እና ትብብርዎ አመሰግናለሁ።

ክፍል አንድ: - የስነ-ሕዝብ ባህሪያት መረጃዎች				
ተ.ቁ.	ጥያቄዎች/መጠይቆች	ምላሽ	ኮድ	ወደ ሚቀጥለው
101	ፆታ	1. ወንድ 2. ሴት		
102	ዕድሜ	_____ ዓመት		
103	የጋብቻ ሁኔታ	1. ያገባ/ች 2. ያላገባ/ች 3. የፈታ/የፈታች 4. የሞተባት/የሞተችበት 5. ሌሎች		
104	የአገልግሎት ርዝማኔ (በአመታት ውስጥ)	1. <5 ዓመት 2. 5-10 ዓመት 3. 11-15 ዓመት 4. >15 ዓመት		
105	የእርስዎ ኃላፊነት ምንድን ነው?	1. ሰራተኛ ነርስ 2. ዋና/አስተባባሪ ነርስ 3. ማትሮን / ዋና ነርስ 4. ጠቅላላ ሐኪም 5. ማናጀር ሐኪም 6. ች ፍ ሐኪም		
106	የትምህርት ደረጃ	1. ዲፕሎማ ነርስ 2. የመጀመሪያ ዲግሪ ነርስ 3. ማስተርስ ነርስ እና ከዚያ በላይ 4. ጠቅላላ ሐኪም 5. ስፔሻሊስት 6. ስፔሻሊስት እና በላይ		
107	የስራ ክፍል	1. የተገኘቶ ህክምና ክፍል 2. ጽኑ እንክብካቤ ህክምና ክፍል 3. የድንገተኛ ክፍል 4. የተመላላሽ ህክምና ክፍል		

ክፍል 2፡ የነርስ-ሐኪም የትብብር ልኬት						
	ጥያቄ	ሁሌም=5	ጊዜ=4	አንዳንድ ጊዜ=3	አልፎ አልፎ=2	በጭራሽ=1
201	ነርሶቹ እና ሀኪሞቹ ከታካሚ ህክምና/እንክብካቤ ጋር የተያያዙ ችግሮችን ለመፍታት አስተያየት ይለዋወጣሉ።					
202	ስለ ታካሚ እንክብካቤ የወደፊት አቅጣጫ አለመግባባት በሚፈጠርበት ጊዜ ነርሶች እና ሐኪሞች የአመለካከት ልዩነቶችን ለመፍታት ውይይት ያደርጋሉ፡ :					
203	ሕክምናው የሚጠበቀው ውጤት በማይኖርበት ጊዜ ነርሶቹ እና ሀኪሞቹ የተወሰነ ሕክምና ለመቀጠል ይወያያሉ።					
204	አንድ በሽተኛ ከሆስፒታል ሊወጣ በሚችልበት ጊዜ ነርሶቹ እና ሀኪሞች በሽተኛው የት እንደሚታከሙ እና በሽተኛው ሊከተላቸው የሚገቡትን የአኗኗር ዘይቤዎች ይወያያሉ።					
205	ከአስቸጋሪ ታካሚ ጋር ሲገናኙ ነርሶቹ እና ሀኪሞቹ ሁኔታውን እንዴት እንደሚይዙ ይወያያሉ።					
206	ነርሶቹ እና ሀኪሞቹ በሽተኛው ስላላቸው ችግሮች ይወያያሉ።					
207	ነርሶቹ እና ሐኪሞች ስለ በሽተኛው እንክብካቤ የወደፊት አቅጣጫ ተመሳሳይ ግንዛቤ አላቸው።					
208	በሽተኛው ያልተጠበቁ የጎንዮሽ ጉዳቶች ወይም ውስብስብ ችግሮች ካጋጠመው ነርሶች እና ሀኪሞች ስለ መከላከያ እርምጃዎች ይወያያሉ።					
209	አንድ በሽተኛ ሰራተኛውን ካላመነ፣ ነርሶቹ እና ሀኪሞቹ ሁኔታውን ለመፍታት ወጥ በሆነ መንገድ ለታካሚው ምላሽ ለመስጠት ይሞክራሉ።					
210	የታካሚ እንክብካቤ የወደፊት አቅጣጫ በነርሶች እና በሐኪሞች መካከል የጋራ የሃሳብ ልውውጥ ላይ የተመሰረተ ነው።					
211	ነርሶቹ እና ሀኪሞች አንድ በሽተኛ ሊወጣ እንደሚችል በሚያሳዩ ምልክቶች ላይ ስምምነት ይፈልጋሉ።					
212	ነርሶቹ እና ሀኪሞቹ የህክምና አደጋዎችን እንዴት መከላከል እንደሚችሉ ይወያያሉ።					
213	ነርሶቹ እና ሀኪሞቹ ስለ ህመሙ ወይም ህክምናው ለታካሚ የተብራሩትን ሁሉም ያውቃሉ።					

214	የነርሶች ህክምና የሚያስከትለውን ውጤት ለማረጋገጥ ነርሶቹ እና ሀኪሞቹ መረጃን ይጋራሉ፡፡					
215	ነርሶቹ እና ሐኪሞች ስለ በሽተኛው እንክብካቤ የወደፊት አቅጣጫ ተመሳሳይ ግንዛቤ አላቸው፡፡					
216	ነርሶቹ እና ሐኪሞች በታካሚው ህይወት ውስጥ ዋናውን ሰው ይለያሉ፡፡					
217	በሕክምና ዕቅድ ላይ ለውጥ በሚኖርበት ጊዜ ነርሶች እና ሐኪሞች የለውጡን ምክንያት በተመለከተ የጋራ ግንዛቤ አላቸው፡፡					
218	ነርሶቹ እና ሀኪሞቹ አንድ በሽተኛ የጎንዮሽ ጉዳቶች ወይም ውስብስቦች ምልክቶች እንዳሉት እርስ በርስ ይማከራሉ፡፡					
219	ነርሶቹ እና ሀኪሞቹ ስለ አንድ በሽተኛ ስለ በሽታው ሁኔታ እና የሕክምና ዘዴዎች ማብራሪያ ሲሰጡ ስለነበረው ምላሽ መረጃን ይጋራሉ፡፡					
220	ነርሶቹ፣ ሀኪሞቹ እና በሽተኛው የታካሚውን የመፈወስ እና የመንከባከብ ፍላጎት በተመለከተ ተመሳሳይ ግንዛቤ አላቸው፡፡					
221	ነርሶቹ እና ሀኪሞቹ የዕለት ተዕለት ኑሮ እንቅስቃሴዎችን በተመለከተ ስለ በሽተኛው የነጻነት ደረጃ መረጃን ይጋራሉ፡፡					
222	ነርሶቹ እና ሀኪሞቹ ከስራ ጋር በተያያዙ ጉዳዮች ላይ ስለሌሎች ጉዳዮች በቀላሉ ማውራት ይችላሉ፡፡					
223	ነርሶቹ እና ሀኪሞቹ ከስራ ጋር በተያያዙ ጉዳዮች ላይ መረጃን ወይም አስተያየቶችን በነፃ መለዋወጥ ይችላሉ፡፡					
224	ነርሶቹ እና ሀኪሞቹ በጣም በሚደክሙበት ጊዜ አንዳቸው ለሌላው አሳቢነት ያሳያሉ					
225	ነርሶች እና ሐኪሞች እርስ በርስ ይረዳዳሉ፡፡					
226	ነርሶች እና ሐኪሞች በየቀኑ ሰላምታ ይለዋወጣሉ፡፡					
227	ነርሶቹ እና ሀኪሞቹ አንድን በሽተኛ በአንድ ላይ ለማከም እቅድ ሲያወጡ አንዳቸው የሌላውን የጊዜ ሰሌዳ ግምት ውስጥ ያስገባሉ፡፡					
ክፍል 3፡ ተቋማዊ ሁኔታዎች						

	ጥያቄ	በጠንካራ ሁኔታ	ተስማማሁ=4	ገለልተኛ=3	አልስማማም=2	በጣም አልስማማም=1
301	የተቋሙ መስተዳድር የሙያዊ ትብብር ቡድን ሲኖረን ደጋፊ መሆናችንን አረጋግጧል					
302	የእኛ አስተዳደሮች የእኛን ደህንነት በሚመለከቱ ጉዳዮች ላይ በሙያዊ ቡድን ውስጥ ተሳትፎን ይፈልጋል					
303	ሁልጊዜም ውጤታማ የሆነ የሙያዊ ቡድኖች ግልጽ እና የተገለጸ መሪ እንዳላቸው ይሰማኛል።					
304	የሙያዊ ቡድን መሪ አንዳንድ ጊዜ ሌሎች ባለሙያዎች በሚያደርጉት ላይ ተጽዕኖ ያሳድራል					
305	የሙያዊ ቡድን መሪዎች እሴቶችን እና የቡድን ዲሞክራሲያዊ የአመራር ዘይቤ መርሆዎችን ይተገብራሉ					
306	የእኛ የባለሞያ ቡድኖች ታካሚን ያማከለ እንክብካቤን ውጤታማ በሆነ መንገድ የማቀድ ችሎታ አላቸው					
307	የሙያዊ ቡድኖች አሉ ምክንያቱም ካውንቲው ባለሙያዎች እንዲተባበሩ ስለወሰነ ነው					
308	የባለሞያ ቡድናችን የሚሰራበት ድርጅታዊ አወቃቀሮች የትብብር ግንኙነቶችን ያበረታታሉ					
309	በባለሙያዎች መካከል ትብብር ከፍተኛ ዋጋ ያለው መሆኑ የተለመደ ነው					
310	በባለሞያ ቡድኖች ውስጥ አዳዲስ የስራ መንገዶችን እንድናስተዋውቅ እንበረታታለን።					
311	የተሳካ የባለሞያዎች ትብብር ቁልፍ አንዱ ክፍል በኢንፎርሜሽን፣ ኮሙዩኒኬሽን እና ቴክኖሎጂ (አይሲቲ) ትግበራ/ስራ ላይ ማዋል ነው					
312	ቀጣሪዬ በባለሙያዎች መካከል ትብብርን የሚደግፍ አስፈላጊውን ፋይናንስ ያቀርባል					
ክፍል 4: ሙያዊ ጋር የተያያዙ ምክንያቶች						

401	የቡድን አባላት ስለተለያዩ ክሊኒካዊ ርዕሰ ጉዳዮች የሚቀርቡበት እና የሚያስተምሩበት የውስጥ የትምህርት ቀን አለን					
402	የቅድመ-አገልግሎት ስልጠናዬ እና ተከታታይ ሙያዊ እድገቴ (ሲፒዲ) ከሌሎች ባለሙያዎች ጋር በብቃት እንድተባበር አዘጋጅቶልኛል					
403	ከሌሎች የትምህርት ዓይነቶች የሕክምና ባለሙያ ጋር ተስማምቼ እሰራለሁ					
404	የቡድን አቀራረብን በሚደግፍ ምላሽ እና ኃላፊነት በተሞላበት መንገድ ሁል ጊዜ በጤና እና በሌሎች መስኮች ካሉ ባለሙያዎች ጋር እገናኛለሁ					
405	አንዳንድ የጤና አጠባበቅ ባለሙያዎች በሙያዊ አመለካከታቸው የኢንተር-ፕሮፌሽናል ስብሰባዎችን ይቆጣጠራሉ።					
406	አንዳንድ የጤና እንክብካቤ ባለሙያዎች በስብሰባዎች ላይ የበላይነታቸውን ስለሚቆጣጠሩ አልፎ አልፎ የባለሙያ ቡድኖች አይሰሩም					
407	በባለሙያ ቡድኖች ውስጥ በምሠራበት ጊዜ ሌሎች ባለሙያዎች ከእኔ ጋር የሚቃረኑ ተስፋዎች እንዳላቸው ሁልጊዜ ይሰማኛል					
408	በባለሙያ ቡድኖች ውስጥ ስሰራ የኃላፊነት ቦታዬ በግልፅ እንደሚገለፅ ሁልጊዜ ይሰማኛል።					
409	ህጎች እና ደንቦች የተደነገጉ እና በባለሙያ ቡድኖች ውስጥ የታወቁ ናቸው					
410	እያንዳንዱ የሕክምና ባለሙያ የሌሎች ባለሙያዎችን የኃላፊነት ቦታ ያውቃል					
ክፍል 5፡ ግለሰባዊ ጉዳዮች/ሁኔታዎች						
501	በምሳተፍባቸው የሙያዊ ቡድኖች ውስጥ ስላበረከትኳቸው አስተዋፆዎች አግባብነት ያለው አስተያየት አገኛለሁ					
502	እኔ በምሳተፍባቸው የባለሙያ ቡድኖች ውስጥ ሁል ጊዜ ጥሩ ግንኙነት አለ					
503	በባለሞያ ቡድኖች ውስጥ ስሰራ የግል እድገት አጋጥማለሁ					
504	በባለሞያ ቡድኖች ውስጥ ስሰራ ፈጠራዬን እና ምናብዬን እጠቀማለሁ።					
505	የባለሙያዎች ትብብር የአዕምሮ ክፍትነትን ይጠይቃል					
506	የሌሎች ባለሙያዎችን አስተዋፅዖ እውቅና እና ማክበር የባለሙያዎችን ትብብር ያበረታታል					
507	በግለሰብ እና በፕሮፌሽናል ደረጃዎች የጋራ መተማመንን ማሳደግ የባለሙያዎችን ትብብር ያበረታታል					
508	አንዳንድ ባለሙያዎች በሙያዊ መካከል ያለውን ትብብር አስቸጋሪ በሚያደርጉ መንገዶች ይሠራሉ					

ክፍል 6፡ ጥልቅ ቃለ ምልልስ

ክፍል አንድ: የማህበራዊ ባህሪያት

1.1 ስም (_____ኮድ) 1.2 ጾታ_____1.3 እድሜ_____ 1.4 ጋብቻ_____

1.5 ሙያ _____ 1.6 ኃላፊነት/ቦታ _____1.7 አገልግሎት/ልምድ _____

ክፍል ሁለት፡ የሙያዊ ትብብር ሁኔታን በተመለከተ

ተ.ቁ	ጭብጥ/ ዋና ርእሰ-ጉዳይ	ዋና ዋና ጥያቄዎች	የማብራሪያ ጥያቄዎች	ተጨማሪ ጥያቄዎች
1	የነርሶች እና የሀኪሞች ትብብር በተመለከተ	በነርሶች እና በሀኪሞች መካከል ስላለው የትብብር ሁኔታን እንዴት ይገልጹታል		ተጨማሪ ካለዎት
		በሚሰሩበት ዋርድ ውስጥ ያለዉ የባለሙያዎች ትብብር ተሞክሮ ምን ይመስላል	በምሳሌ ቢያስረዱኝ	ተጨማሪ ካለዎት
2	በሙያዊ ትብብር ላይ ተጽእኖ የሚያሳድሩ ምክንያቶችን በተመለከተ	በባለሙያዎች መካከል ትብብር እንዳይኖር እንቅፋት/ችግር የሚፈጥሩ ምን ምን ጉዳዮች ናቸዉ ብለዉ ያስባሉ	ከተቋሙ፤ ከባለሙያዎች፤ እና ከግለሰቦች ጋር የተያያዙ ነጥቦችን ማንሳታቸዉን ማረጋገጥ	ተጨማሪ ካለዎት
		የባለሙያዎችን ትብብር የሚያበረታቱ ምን ምን ሁኔታዎች አሉ		ተጨማሪ ካለዎት
3	የባለሙያዎች የትብብር አስፈላጊነት እና ውጤታማነት/ጠቀሜታ	በነርሶች እና በሐኪሞች መካከል ያለው ትብብር ምን ያህል ውጤታማ እና አስፈላጊ ነው ብለው ያስባሉ	ለባለሙያዎች፤ ለተቋሙ እና ለተገልጋዮች ያለውን ጠቀሜታ ማብራራታቸውን ማረጋገጥ	
		የባለሙያዎች ትብብር ለታካሚው ደህንነት፤ ለባለሙያዎች እና ለተቋሙ ምን ምን ጠቀሜታ አለው ብለው ያስባሉ	ለባለሙያዎች፤ ለተቋሙ፤ እና ለህሙማን ያለዉን ጠቀሜታ ማስረዳታቸውን መከታተል	
		የባለሙያዎች ትብብር በጥሩ ሁኔታ እንዲዳብር ምን ያስፈልጋል	ተቋሙ ለባለሙያዎች የሚያደርገው የማበረታቻ ድጋፍ ካለ መጠየቅ	

12.3 Declaration form

I, the under signed, declared that this is my original work, has never been presented in this any other University, and that all the resources and materials used for the research, have be fully acknowledged.

Principal investigator
Name: Tadele Degu
Signature:
Date:

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Sign
Date: 17/08/2022

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