

Perceived Adherence to Code of Ethics and Associated Factors Among Nurses Working at Governmental and Private Hospitals of Dessie City Administration, 2024: A Comparative Study

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Abstract

Background

A Nursing Code of Ethics is a non-negotiable formal framework that defines the primary goals, ethical values, and professional standards for nurses. It serves as an ethical guide for practice, clinical decision-making, and professional self-regulation. Despite this, little evidences reported among nurses at governmental hospitals and no reports regarding nurses working at private hospitals. This study was aimed to compare perceived adherence to the code of ethics and associated factors among nurses working at government and private hospitals in Dessie city administration.

Methods

An institution-based comparative study design was employed from May 1–30/2024, among 253 nurses working at Dessie city administration hospitals (192 from governmental hospitals and 61 from private hospitals). The data was collected using structured pretested self-administered questionnaire. Simple random sampling was used to select participants from each Hospital. Data was entered into EPI INFO version 7.2.1.0 and exported to SPSS version 26 for analysis. The bi-variable analysis was done primarily and variables with p-value < 0.25 were further examined using a multi-variable logistic regression. Having a p-value less than 0.05 with 95% CI was used to declare significant association.

Result

the study showed that about 120 (47.4%) nurses demonstrated good adherence to the code of ethics. Approximately 58.7% (37) of nurses from private hospitals showed good adherence to code of ethics than 43.2% (83) of nurses working at government hospitals. In multivariable logistic regression analysis; Nurses who were working in Emergency units (OR = 2.72, 95% CI (1.18, 6.27)), nurses graduated from government academic institutions (OR = 2.53, 95% CI (1.35, 4.73)), nurses who were satisfied with their job (AOR = 2.42, 95% CI (1.33–4.41)), nurses having supportive supervision (AOR = 3.22, 95% CI (1.82–5.70)) ,and who had adequate knowledge (AOR = 2.09, 95% CI (1.18–3.70)) were significantly associated with good adherence to nursing code of ethics.

Conclusion

The adherence of nurses to the code of ethics was said to be poor when compared to recommended standards and better among nurses at private hospitals than government-employed nurses.

1. INTRODUCTION

Ethical codes are instructions that shape ethical behavior and determine which values and beliefs should be accepted and used as a practical guideline in the nursing profession(1). It has also been referred to as the science of morals and accepted codes of conduct, ethics is the moral principle that seeks to determine what is morally right and what is morally wrong in human action (2, 3). The rational and ethical

application of communication, knowledge, clinical skills, emotions, and values in nursing practice is known as nursing ethics (4–8).

Nursing ethics is a set of principles that guide nursing practice and professional conduct (9–12). Nursing ethics plays a fundamental part in the nurse-client relationship by incorporating rational reasoning and critical thinking into clinical practice(13). A code of conduct for nurses founded its base on patient needs, rights, and human dignity and nurses must comprehend, understand, and apply it in all facets of their profession (14, 15). Nurses are the largest health care group, have well known and important professional values. The use of these values in nursing practice increased the quality of patients care and patients' health improvement (16, 17). Professional values are a source to promote nurses' ethical competencies in clinical settings and dealing with ethical concerns in the present era (18).

Although in patients' care is essential and most nurses are aware of ethical issues(15, 19), studies revealed that nurses had poor attachment to nursing ethics and nurses were not interested in applying ethical principles and knowledge in their work(4). Again in many cases they lack sufficient power and support to demonstrate their reaction in this regard(4, 15).

Adherence to code of ethics was observed significantly high among nurses working in developed countries (9). In particular, a study done in Nepal found that 50% of the 1,600 resident doctors and front-line healthcare executives had good adherence to professional ethics(10). Locally in Ethiopia, studies reported that the adherence to code of ethics among health professionals found low. Particularly good adherence to code of ethics found 45.6% and 46.7% among health professionals in studies at Bale zone and central Gondar zone respectively(20, 21). Again 53% of nurses in Gurage zone had good practices of professional code of ethics(9).

Different studies identified that the support system by leaders, educational status, satisfaction of health professionals on their job, work experience, attitude, knowledge, were among variables which were associated significantly with adherence of health professionals to their professional code of ethics (6, 9).

Professional ethics is essential for ensuring the quality of care and the protection of patients' rights and dignity. However, the adherence level of nurses to their professional code of ethics in Ethiopia is not well understood (16, 17, 22, 23). Despite Private sector health care providers (PSHCPs) are often a significant part of the health system in developing countries (24), evidences were limited to nurses working at public hospitals(16, 17). Therefore, it is important to compare the code of ethics practices between nurses working at governmental and private hospitals(24).

The increased community awareness about health professionals' responsibilities and mandates leads to increasing complaints against health professionals(25) this Rapid changing in health care settings puts nurses at risk of ethical dilemma(26). Improper practice of health care ethics, poor management, and solution to health care service errors threaten a patient-provider relationship and the quality of health service delivery (27–31). Nurses are ever-increasingly confronted with complex concerns in their

practice. Codes of ethics are fundamental guidance for nursing as many other professions (24). Thus, scientific evidences and recommendations are critical to solve such problems (16, 17).

As far as my search studies conducted concerning adherence of professional code of ethics among nurses were few. This paper aimed to fill these gaps by using a comparative study between nurses working at governmental and private hospitals. It evaluates the adherence level of nurses to their professional code of ethics and identifies the factors associated with it from a holistic perspective. The findings of this paper aimed to contribute for the existing information on nurse's adherence to code of ethics in Ethiopia.

2. METHOD AND MATERIALS

2.1. Study Design, Area and population

An institution-based comparative study design was employed at governmental and private hospitals in Dessie City Administration which is located in the Amhara Region of North East Ethiopia. Two governmental and four private hospitals were found in the city and a total of 388 nurses in government hospitals and 124 nurses in private hospitals were providing nursing care(32). The source populations were all nurses working at government and private Hospitals in Dessie city administration 2024. The study populations were nurses working at government and private hospitals in Dessie city administration 2024 and who were available during the study period. Nurses working at Hospitals in Dessie city administration 2024 and who had work experience more than 6 month (minimum experience to be a permanent employee) were included in this study. Nurses, who were on annual leave, maternal, leave and sick leave during data collection period, were excluded from this study. The study was conducted from May 1 to 30, 2024 G.C.

2.2. Operational definitions

Adherence to code of ethics practice

nurses who scored above the mean score of adherence to practice-related questions were considered to have good adherence, and those who scored the mean and below were labeled as having poor adherence (33).

Good knowledge about the professional code of ethics: nurses who scored above the mean score of knowledge assessment questions were considered to have adequate knowledge, and those who scored the mean and below were labeled as having inadequate knowledge (33).

Favorable attitude about professional code of ethics: nurses who scored above the mean score of attitude assessment questions were considered as having favorable attitude and those scored the mean and below were labeled as having unfavorable attitude(33).

Satisfied with job: Participant who was scored equal to mean or more with Minnesota Satisfaction Questionnaire (MSQ)(34). Participant who was scored less than mean with Minnesota Satisfaction Questionnaire (MSQ) were categorized Dissatisfied with job: (34).

Alcohol drinking: : Current drinkers were those who consumed alcohol in the past 12 months, and participants who could not drink any alcoholic drinks in the past 12 months were classified as Non-drinkers as per the definition of the World Health Organization(WHO)(35).

Cigarette Smoking

Participants who have smoked more than 100 cigarettes in a lifetime and have smoked in the last month are considered current smokers. Participants who have smoked more than 100 cigarettes in their lives and have not currently smoked in the past month are considered ex-smokers. Participants who have not smoked more than 100 cigarettes in their lives and have not currently smoked in the last month were labeled as non-smokers (36).

khat chewer

Defined as nurses who used khat at least once during the last 1 month were defined as Current khat chewers, and those who had not ever used khat in their lifetime were categorized as non-khat chewers(37).

2.3. Sampling and Sample size determination

Sample size was determined by using the double population proportion formula by considering the proportion nurses having good adherence to code of ethics in governmental and private hospitals was 53%(33) and 40%(2) respectively. After the final sample size was decided, samples were allocated to governmental and private hospitals proportionally. Likewise participants from each working unit were selected using simple random sampling (Fig. 1).

2.4. Data collection tools and Quality control

The data was gained from self-administered questionnaires of participants with English language. The questionnaire was divided into four sections. The first section contains 13 questions that cover organizational and socio-demographic factors, while the second section contains 8 questions that address behavioral factors. The third section, which deals with personal factors, was divided into three subsections: knowledge, attitude, and job satisfaction. The job satisfaction questions are adopted from the short-form Minnesota job satisfaction measurement tool (34). The fourth part contains 13 Likert scale questions (rated from 1–3) used to assess perceived adherence to the nursing code of ethics. The tool was adopted from a study conducted at Gurage Zone, Ethiopia(33).

Before the final study, the questionnaire was pretested on 5% (n = 13) of the nurses at Woldya Comprehensive Specialized Hospital fifteen days before the final study. The tool was internally

consistent with Cronbach’s alpha test result of 0.93, 0.84, 0.79 and 0.94 for adherence, knowledge, attitude, and job satisfaction assessment tool respectively and. Each question had a unique numerical code for entering Epi-data Manager version 4.6.

2.5. Data processing and analysis

After data collection, the data was checked and entered into a computer using Epi data version 4.6 and was exported to SPSS version 26 for data analysis. Descriptive statistics including frequencies and percentages was calculated for all variables. Initially bi-variable logistic regression analysis was carried out to see the association between the outcome and each explanatory variable, and then variables with P-value < 0.25 were selected for multi-variable logistic regression analysis. Multicollinearity among variables was evaluated using VIF and found below 1.8 for all variables and model fitness was checked using Hosmer and Lomeshow test (fit at 0.71). Variables having P-values < 0.05 in multi-variable logistic regression analysis was used to declare statistical significance. Findings were presented using text, tables, graphs and charts.

3. RESULT

3.1 Socio-demographic characteristics of nurses

In this study, a total of 253 (192 from government and 61 from private) nurses were participated with 100% response rate and majority 167(66%) off them were female. From the total participants two-third (61%) were aged below 30 years old and Majority 42(69%) of participants from private hospitals were had monthly salary of below 10000 ETB, but relatively lower number of participants 6(3.1%) paid below 10000 ETB from governmental hospitals. One hundred seventy five (91.1%) participants were first degree holders (BSc) among the total 192 participants from governmental hospitals, and 41 (67%) of participants from private hospitals were found at similar educational level. Only 10 (5%) of participants were masters holder from governmental hospitals and none of participants had masters from private hospitals (Table 1).

Table 1: Socio-Demographic Characteristics of Nurses Working at Government (n= 192) and Private Hospitals (n= 61) in Dessie City Administration 2024

Variables	Categories	Hospitals				Total	
		Governmental		Private			
		N	%	n	%	n	%
Sex	Male	69	35.9	17	27.9	86	34.0
	Female	123	64.1	44	72.1	167	66.0
Age	<30 years	106	55.2	50	81.9	155	61.3
	31-40 years	61	31.8	10	16.4	71	28.1
	>40 years	25	13.0	1	1.64	27	10.7
Marital status	Single	46	24.0	29	47.5	75	29.6
	Married	146	76.0	32	52.5	178	70.4
Educational status	Diploma	7	3.6	20	32.8	27	10.7
	BSc	175	91.1	41	67.2	216	85.4
	MSc and above	10	5.2	0	0	10	4.0
Religion	Orthodox	119	62.0	36	59.0	155	61.3
	Muslim and Protestants	73	38.0	25	41.0	98	38.7
Experience	<5years	43	22.4	41	67.2	84	33.2
	5-10 years	120	62.5	18	29.5	138	54.54
	>10 years	28	14.6	3	3.27	30	11.85
Monthly income	<10000 ETB	6	3.1	42	68.9	48	19.0
	10000-15000 ETB	82	42.7	18	29.5	100	39.5
	>15000 ETB	104	54.2	1	1.6	105	41.5
Working unit	IPD	129	67.2	28	45.9	157	62.1
	Emergency	29	15.1	10	16.4	39	15.4
	OPD	34	17.7	23	37.7	57	22.5

3.2 Organizational characteristics

From the total of 253 participants, majority 164(64.8%) were graduated from private academic institutions, relatively high number of nurses 151(78.6%) were graduated from governmental academic institutions from participants of governmental hospitals. Inversely 48(78.7%) of participants who were working in private hospitals were graduated from private academic institutions. More than half 100(52%)

of participants from governmental hospitals gained training about code of ethics it was 22(36.1%) among participants who were working in private hospitals (Table 2).

Table 2: Organizational Factors of Nurses Working at Government (n= 192) and Private Hospitals (n= 61) in Dessie City Administration, 2024

Variables	Response	Hospital				Total	
		Governmental		Private			
		N	%	n	%	n	%
Graduated from?	Private institution	41	21.4	48	78.7	89	35.2
	Government institution	151	78.6	13	21.3	164	64.8
Supportive supervision from your leaders?	No	75	39	39	63.9	114	45
	Yes	117	61	22	36.1	139	55
Do you take training about nursing code of ethics practice?	No	92	48	39	63.9	131	55
	Yes	100	52	22	36.1	122	45
Is there ethical committee in your hospital/ward	No	74	37.5	27	44.3	101	38.7
	Yes	118	61.5	34	55.7	152	61.3
Are there available ethical guidelines?	No	68	35.4	26	42.6	94	37
	Yes	124	64.6	35	57.4	159	63

3.3 Adherence to code of ethics among nurses

The overall good adherence to the code of ethics among nurses were 47.4% (120), about 43.2% (83) participants from governmental hospitals, and 60.7% (37) from private hospitals had good adherence to the code of ethics (figure 2).

3.4 Factors associated with Adherence to Code of Ethics in governmental Hospitals

Variables which associated significantly with adherence to nursing code of ethics among nurses working at governmental hospitals were drink alcohol ever, getting supportive supervision and having hospital/ward ethical committee. Nurses who were drunk alcohol ever (AOR = 0.33, CI 95% (0.126-0.863) p-value =0.024) 67% less likely to have good adherence to nursing code of ethics as compared to nurses who were never drink alcohol ever. On the other odds of having good adherence to nursing code

of ethics among participants who were got supportive supervision (AOR =3.27, CI 95% (1.542-5.728) P-value = 0.001) was 3.27 times that of nurses who were not got supportive supervision. Again participants who were working in hospitals/ward where ethical committee present (AOR =2.05, CI 95% (1.066-3.950) P-value = 0.031) were 2 times more likely to have good adherence of code of ethics when compared to that of their counterparts (Table 3).

Table 3. *Bivariable and Multivariable Logistic Regression Output of Determinants of Adherence to Code of Ethics among Nurses Working at Government Hospitals 2024 (n =192)*

Variables	Category	Adherence to code of ethics		COR (95% CI)	AOR(95% CI)	P-value
		Good	Poor			
		n (%)	n (%)			
Working unit	IPD	61(47.3)	68(52.8)	1	1	
	Emergency	10(34.5)	19(65.5)	1.70(.736-3.949)	2.221(.893-5.525)	0.086
	OPD	12(35.3)	22(64.7)	1.64(.751-3.601)	2.043(.864-4.835)	0.104
Are you gaining supportive supervision?	No	45(60.8)	29(39.2)	1	1	
	Yes	38(32.2)	80(67.8)	3.27(1.783-5.987)	2.972(1.542-5.728)	0.001***
Did you drink alcohol ever?	No	67(39.9)	101(60.1)	1	1	
	Yes	16(66.7)	8(33.3)	0.33(0.134-0.818)	0.33(0.126-0.863)	0.024*
Is there ethical committee in your ward	No	41(56.2)	32(43.8)	1	1	
	Yes	42(35.3)	77(64.7)	2.35(1.294-4.263)	2.05(1.066-3.950)	0.031*

P-value 0.01-0.05 =*, p-value 0.002-0.009 = **, p-value ≤ 0.001 = ***

3.5 Factors associated with Adherence to Nursing Code of Ethics in Private Hospitals

Being 30 and above years old, having adequate knowledge, and having job satisfaction were factors significantly associated with good adherence to code of ethics among nurses working at private

hospitals. The odds of having good adherence to code of ethics among participants who aged above 30 years old (AOR =7.02, CI 95% (1.293- 38.144), p-value =0.024) was 7 times that of those aged 30 years and below. Similarly nurses who had adequate knowledge about nursing code of ethics (AOR =10.13, CI 95% (1.731-59.229), p-value =0.010) 10 times more likely to have good adherence to code of ethics as compared to nurses who had not adequate knowledge about nursing code of ethics. Again nurses who were satisfied on their job (AOR =10.93, CI 95% (2.126-56.145), p-value=0.004) were 11 times more likely to have good adherence to nursing code of ethics than their counterparts (Table 4).

Table 4: Bivariable and Multivariable Logistic Regression Output of Determinants of Adherence to Code of Ethics among Nurses Working at Private Hospitals 2024 (n = 61)

Variables	Category	Adherence to code of		COR (95% CI)	AOR (95% CI)	P-value
		Good n(%)	Poor n(%)			
Religion	Orthodox	21(58.3)	15(41.7)	1	1	
	Muslim and Protestants	16(64)	9(36)	0.79(.275-2.254)	0.217 (0.044-1.071)	0.061
Age category	<30 years	29(72.5)	11(27.5)	1	1	
	>=30 years	8(38)	13(62)	4.28(1.396-13.148)	7.02(1.293-38.144)	0.024*
Knowledge status	Inadequate	22(91.7)	2(8.3)	1	1	
	Adequate	15(40.5)	22(59.5)	16.13(3.292-79.063)	10.13(1.731-59.229)	0.01**
Job satisfaction	Not satisfied	25(83.3)	5(16.7)	1	1	
	Satisfied	12(38.7)	19(61.3)	7.92(2.380-26.331)	10.93(2.126-56.145)	0.004**

P-value 0.01-0.05 =*, p-value 0.002-0.009 = **, p-value ≤ 0.001 = ***

3.6 Factors associated with Adherence to Code of Ethics in governmental and Private Hospitals

Overall working unit, drinking alcohol, knowledge status, job satisfaction, and getting supportive supervision from leaders were identified as determinant factors of adherence to nursing code of ethics.

Nurses who were working in Emergency unit (AOR = 2.72, CI 95% (1.181-6.265), P-value = 0.019) 2.7 times more likely to have good adherence to nursing code of ethics when compared to that of nurses who were working in IPD working unit. Likewise nurses who had adequate knowledge about nursing code of ethics (AOR =2.094, CI 95% (1.183-3.704), p-value =0.011) 2 times more likely to have good adherence to code of ethics as compared to their counterparts. Again the odds of having good adherence to nursing code of ethics among those satisfied on their job (AOR =2.42, CI 95% (1.334-4.414), value=0.004) was 2.4 times more likely when compared to their counterparts. Additionally Participants who were graduated from government academic institutions (AOR =2.527, CI 95% (1.350-4.729) P-value = 0.004) 2.52 times more likely to have good adherence of code of ethics when compared to that of nurses who were graduated from private academic institutions. Similarly the odds of having good adherence of nursing code of ethics among participant who were got supportive supervision (AOR =3.218, CI 95% (1.816-5.700) P-value = 0.000) was 3.218 times that of nurses who were not got supportive supervision. Unlikely nurses who were drunk alcohol ever (AOR = 0.27, CI 95% (0.110-0.694) p values =.006) 73% less likely to have good adherence to nursing code of ethics as compared to nurses who were never drink alcohol ever (Table 5).

Table 5: Binary Logistic Regression Analysis of Factors Determining Adherence to Code of Ethics among Nurses Working at Government and Private Hospitals in Dessie City Administration, 2024 (n = 253).

Variables	Category	Adherence to code of ethics				P-value
		Good	Poor	COR (95% CI)	AOR (95% CI)	
		n (%)	n (%)			
Religion	Orthodox	73	82(53)	1	1	0.098
	Muslim and Protestant	47(48)	51(52)	0.96(.582-1.603)	0.61(0.34-1.09)	
Working unit	IPD	77(49)	80(51)	1	1	0.019*
	Emergency	16(41)	23(59)	1.38(.680-2.816)	2.72(1.18-6.26)	
	OPD	27(47.3)	30(52.7)	1.07(0.583-1.962)	1.83(0.87-3.82)	
Graduated from	Private institution	52(59)	36(41)	1	1	0.004**
	Governmental institution	68(41)	97(59)	2.06(1.218-3.487)	2.53(1.35-4.72)	
gaining supportive supervision	No	74(65.5)	39(34.5)	1	1	0.001***
	Yes	46(32.8)	94(61.2)	3.88(2.296-6.549)	3.22(1.82-5.70)	
Did you drink alcohol ever?	No	101(45)	124(55)	1	1	0.006**
	Yes	19(67.8)	9(32.2)	0.39(0.167-0.890)	0.28(0.11-0.69)	
Knowledge status	Inadequate	68(54.8)	56(45.2)	1	1	0.011*
	Adequate	52(40.3)	77(59.7)	1.79(1.092-2.961)	2.09(1.18-3.70)	
Job satisfaction	Not satisfied	70(58.3)	50(41.7)	1	1	0.004**
	Satisfied	50(37.6)	83(62.4)	2.32(1.403-3.850)	2.43(1.33-4.41)	

P-value 0.01-0.05 =*, p-value 0.002-0.009 = **, p-value ≤ 0.001 = ***

4. DISCUSSION

This study aimed at assessing adherence of code of ethics and associated factors among nurses working at hospitals in Dessie city administration, Amhara region. The current study revealed that adherence of code of ethics among nurses was 47.7% (95% CI, 40.7–54.4). Separately good adherence

was found 43.2% (95% CI, 36.3–50.0) and 60.7% (95% CI, 43.0-71.7) among nurses from governmental and private hospitals respectively.

The proportion of nurses who had good adherence to professional code of ethics in this study was consistent with the finding from studies conducted in Ethiopia which were 45.6% at Bale zone among health professionals(38),. and 46.7% among health professionals working at central Gondar zone hospitals(17). It was also in line with Cross sectional study conducted in Gurage zone, Ethiopia among nurses as the proportion of nurses who practiced nursing code of ethics was 53%(33) The reason behind this consistencies might be due to similarity in target population as all of the above mentioned Ethiopian studies were incorporated nurses as their target population and nurses accounted relatively large number from the total participants.

On the other hand the finding of this study was higher than a study conducted in Addis Ababa Ethiopia among medical doctors. Medical doctors who had good adherence to code of ethics was found 30.4% (2). This deviation might be due to difference in target population as the current study conducted among nurse and it was among medical doctors at Addis Ababa (2). In detail medical doctors who had good adherence to code of ethics was 28.6% (121 from 423) among participants from governmental hospitals and relatively larger portion of medical doctors 40%(31 from 77) had good adherence. In the same way the current study revealed that relatively lower number 43.2% (83 from 192) of participants from governmental hospitals had good adherence to code of ethics when compared to that of 60.7%(47 from 61) from private hospitals. The reason behind this relatively higher proportion of adherence to code of ethics among participants from private hospitals might be due to the nature of the health market as private hospitals compute for customer attraction and one of their ways is composing their staffs with ethically adherent professionals. In many of circumstances the way the recruit health professionals is with the consideration of technical skills and ethical issues with recommendation. Again their intact approach on controlling their employees may have contribution with regard to good achievement in having good adherence to ethical codes.

The figure from study is lower than the study conducted among Iranian nurses in the Middle East as adherence to ethical codes was 86%(29). The possible reason behind this variation might be due to the difference in socioeconomic status between Ethiopia and Iran. The socioeconomic status of midlist countries like Iran was better by far from Ethiopia and the impact of socioeconomic status on advancement of health services and professional competency undisputable. The more developed countries the better achievement in professional competency.

This study identified that, nurses who had good knowledge about nursing code of ethics 2 times more likely to have good adherence to code of ethics as compared to nurses who had poor knowledge about nursing code of ethics. In the same way The qualitative study from Tigray showed the impact of health professionals knowledge of code of ethics on the practice of code of ethics by mentioning its positive attributes(4). Another study which was done at Addis Ababa noticed that knowledgeable medical doctors were 1.8 times more likely to have good practice of code of ethics when compared to those who

were not knowledgeable about code of ethics(2). Again study at central Gondar zone reported that health professionals having good ethical knowledge were more likely to have good adherence to code of ethic by two fold of those who were not knowledgeable(17). The reason behind these similar figures with this regard might be due to the strong link between knowledge and practices as knowledge is the front coming requirement prior to practice. In majority of circumstances the probability of having good practice is due to having detail knowledge.

Likewise this study illustrated that job satisfaction was another personal factors to have significant association with good adherence to code of ethics as those who were satisfied had good adherence 2.4 times when compared to those not satisfied. Similarly the odds of having good adherence among satisfied with their job was 1.5 time that of those not satisfied with study at Gondar(17). The possible reason for this similarity might be that having satisfaction on job is the base for achieving professional tasks including ethical codes.

This study demonstrated that Participants who were graduated from government academic institutions and who were got supportive supervision 2.5 and 3 times more likely to have good adherence of nursing code of ethics to that of their counterparts respectively. This evidence was supported by findings from Ethiopian study conducted at Gurage zone hospitals as nurses who had frequent supportive supervision system were 2.2 times more likely to have good adherence whe compared to their counterparts were factors that associated with nursing code of ethics practice(33). Another qualitative study done at Tigray region identified support systems as determinant factor for practice of code of ethics (4). Health professionals' overall level of practice of health care ethics in the Central Gondar Zone public with mixed method study revealed that ongoing follow-up(follow-up) was driving factor for good practice of code of ethics(17). It might be due to the high probability of recall and practice of professional duties with close follow up and frequent supervision.

5. CONCLUSION

This study showed that below half of nurses had good adherence to code of ethics which was considerably low when compared to expected standard. In multivariable logistic regression analysis; working at emergency, having adequate knowledge, having job satisfaction, and gaining supportive supervision were among variables which were significantly associated with good adherence to code of ethics at different level.

Abbreviations

AOR	Adjusted Odds Ratio
COR	Crude Odds ratio
IPD	Inpatient department
MDGS	Millennium Development goals
MSQ	Minnesota Satisfaction Questionnaire
OPD	Out-Patient Department
PSHCP	Private Sector Health Care Providers
PSHCPs	Private sector Health Care Providers
QoL	Quality of Life
SPSS	Statistical Package for Social Science
VIF	Variance Inflation Factor
WHO	World Health Organization

Declarations

Ethical approval

Ethical Clearance was taken from the ethical review board of Zemen Postgraduate College with Ref. No ZPGC/0816/16. Permission was gained from each Hospital after explaining the purpose of the study. Written Consent was taken from respondents before data collection and the data collected from participants was kept confidential. The research was conducted in accordance with the declaration of Helsinki.

Consent for publication

Not applicable

Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available by considering vulnerability for data fabrication issues, but are available from the corresponding author on reasonable request.

Competing Interest

The authors declare no conflicts of interest.

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Author Contributions

Jemal Mohammed Bahru: Conceptualization, Resources, Investigation, Formal Analysis, Writing original draft,

Mohammed Mechal Adem: review & editing, Project administration, Visualization

Salman Birhanu Melkamu, Methodology, Data curation, Writing – review & editing

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Jemal Mohammed is an accomplished lecturer, care provider and researcher with an excellent research thesis and top academic grades working at Wollo University, nursing department. Surgical nurse graduated in MSc from Gondar University and BSc from Wollo University in Ethiopia. An experienced professional nurse who had a strong emphasis on patient-centered care. Passionate about patient education, empowering individuals to take charge of their health and well-being. Ready to leverage skills to enhance patient care in a dynamic healthcare setting based on evidences. Active on research matters with publications.

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Figures

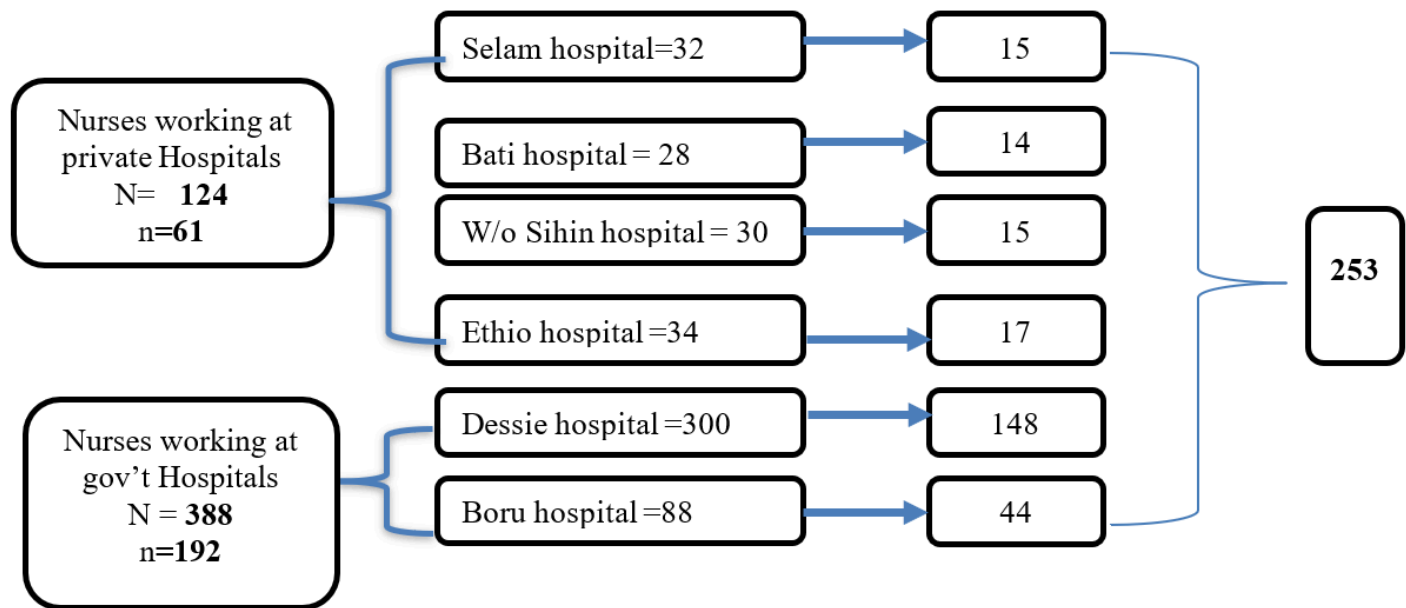


Figure 1

Schematic presentation of sampling technique

Adherence to nursing code of ethics

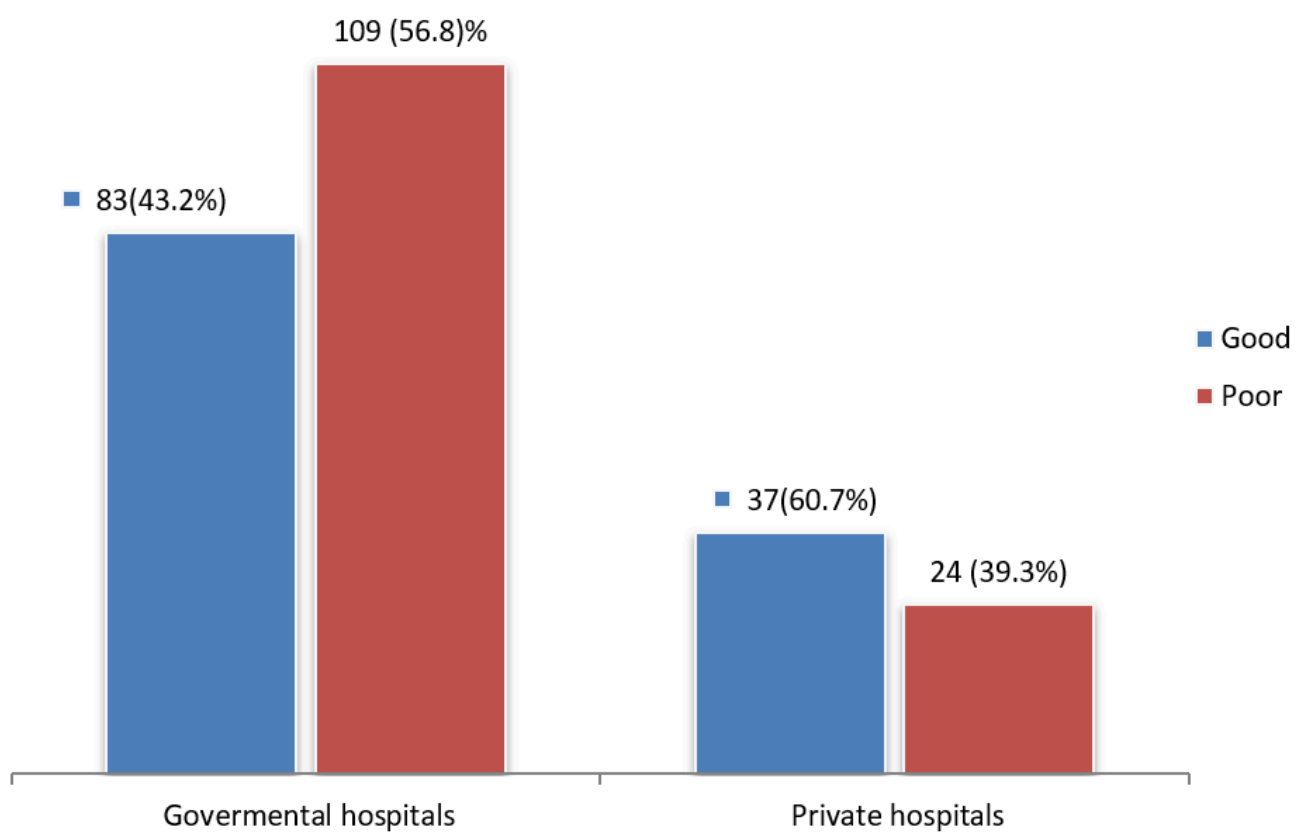


Figure 2

Adherence To Code Of Ethics Among Nurses Working At Hospitals Of Dessie City Administration, 2024.