



**COLLEGE OF HEALTH SCIENCE, SCHOOL OF MEDICINE**

**DEPARTMENT OF EMERGENCY MEDICINE**

**ASSESSMENT OF KNOWLEDGE, ATTITUDE, PRACTICE AND ASSOCIATED FACTORS TOWARDS HEALTHCARE ETHICS AMONG PHYSICIANS AND NURSES WORKING IN EMERGENCY DEPARTMENTS IN SELECTED GOVERNMENTAL HOSPITALS ADDIS ABABA, ETHIOPIA 2019.**

**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE DEPARTMENT OF EMERGENCY MEDICINE AND CRITICAL CARE, FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS OF DEGREE OF MASTERS IN EMERGENCY MEDICINE AND CRITICAL CARE NURSING.**

**JUNE 2019**

**ADDIS ABABA, ETHIOPIA.**

**Declaration**

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**ADDIS ABABA UNIVERSITY**

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## Table of content

### Contents

Acknowledgment .....	I
Table of content .....	II
List of figures .....	VI
Acronyms and abbreviations.....	VII
Abstract.....	VIII
CHAPTER ONE.....	1
1. INTRODUCTION .....	1
1.1. Background .....	1
1.2. Statement of the problem .....	3
1.3. Significance of the study .....	5
CHAPTER TWO .....	6
2. LITERATURE REVIEW .....	6
2.1. Knowledge on medical ethics .....	6
2.2. Attitude towards medical ethics .....	9
2.3. Practice on medical ethics.....	10
2.3 Factors Affecting Knowledge, Attitude and Practice of Medical Ethics .....	11
2.4 Conceptual frame work of the study .....	13
CHAPTER THREE .....	14
3. OBJECTIVES.....	14
3.1. General Objective.....	14
3.2. Specific Objectives.....	14
CHAPTER FOUR.....	15
4. METHODS AND MATERIALS .....	15

4.1. Study design .....	15
4.2. Study area.....	15
4.3. Study period .....	16
4.4. Source population.....	16
4.5. Study population .....	16
4.6. Study unit .....	17
4.7. Eligibility criteria .....	17
4.7.1. Inclusion criteria .....	17
4.7.2. Exclusion criteria.....	17
4.8. Sample size determination .....	17
4.9. Sampling procedure.....	18
4.10. Variables.....	19
4.10.1 Dependent Variable .....	19
4.10.2. Independent variables .....	19
4.11. Operational definition .....	20
4.12. Data collection Tool and procedure .....	21
4.13. Data Quality control.....	21
4.14. Data entry and analysis .....	22
4.15. Ethical Considerations.....	22
4.16. Dissemination of result.....	22
CHAPTER FIVE .....	23
5. RESULTS .....	23
6. DISCUSSION.....	34
7. STRENGTH AND LIMITATION .....	38
8. CONCLUSION AND RECOMMENDATIONS .....	39
9. REFERENCES .....	40

5. Annexes .....	43
5.1. Annex 1: - Assurance of Principal Investigator .....	43
5.2. Annex – 2: Information Sheet and Consent Form.....	44
5.3. Annex-3: Declaration of informed voluntary consent: .....	46
5.4. Annex - 4 data extraction tool .....	47
5.5. Annex-5: Declaration .....	52

## List of tables

Table 1: Types of hospitals study participants working. ....	18
Table 2: Socio-demographics characteristics of study participants. ....	23
Table 3: General information on Federal Health Professionals Ethics Committee. ....	24
Table 4: Knowledge study participants on medical ethics. ....	26
Table 5: Distribution of results on perception of participants on medical ethics ....	27
Table 6: Distribution of study subjects on their practice on medical ethics ....	29
Table 7: Factors associated with knowledge of healthcare ethicsstudy participants ....	31
Table 8: Factors associated with attitude of healthcare ethicsamong study participants. ....	32
Table 9: Factors associated with practice of healthcare ethicsamong study participants ....	33



## List of figures

Figure 1. Conceptual frame work of the study adapted from reviewed literatures.....	13
Figure 2 : Preferred instruments of participants for learning medical ethics.....	24
Figure 3 : Type of hospitals at which study participants were working. ....	25

## Acronyms and abbreviations

AAU	Addis Ababa University
AOR	Adjusted Odd Ratio
BSc	Bachelor of Science
CME	Continuous Medical Education
COR	Crude Odd Ratio
CRC	Compassionate-Respectful-Caring
ED	Emergency Department
EFMHACA	Ethiopian Food, Medicine and Healthcare Administration and Control Authority
EMA	Ethiopian Medical Association
EMCCN	Emergency Medicine and Critical Care Nurse
FHPEC	Federal Health Professionals Ethics Committee
FMOH	Federal Ministry of Health
KAP	Knowledge, Attitude, Practice
LAMICs	Low and Middle-Income Countries
MOH	Ministry of Health
MSc	Masters of Science

## Abstract

**Background:** Healthcare ethics is concerned with moral values and judgment as it applies to clinical practice, which involves consideration of risks versus benefits from procedures or health care decisions. Recently questions are being asked on healthcare ethics about the possible threats to the accepted principles of equity and social justice in the delivery of care within the health sector. Despite these gaps little was studied about healthcare ethics so far. Therefore, this study aimed to assess knowledge, attitude, practice and associated factors of healthcare ethics among healthcare providers.

**Methods:** Institution based cross sectional study was carried out among 230 healthcare providers working in governmental hospitals in Addis Ababa from April 1-28, 2019. Data was collected using pre-tested self-administered questionnaires. The data cleaned, coded, entered into EPI info version 7.1 and SPSS version 24 statistical package for analysis. Descriptive statistics was used to describe those continuous and categorical independent variables. Those independent variables in bivariate analysis with the cut of point  $p < 0.2$  was transferred to multivariate logistic regression. P-value  $< 0.05$  was declared statically significant.

**Results:** This study showed that 61.3% of study participants had good knowledge on medical ethics. Professional qualification, training and attitude were significantly associated with knowledge of healthcare ethics. Among healthcare professionals only 108(47%) had favorable attitude and 113 (57%) poor practice towards healthcare ethics. Work experience, level of satisfaction, knowledge, practice had significant effect on attitude towards healthcare ethics. Whereas attitude was found to be determinant factor on practice of healthcare ethics.

**Conclusion and recommendations:** The findings of this study show healthcare professionals had good knowledge on healthcare ethics. And also indicate gaps in the attitude and practical of medical ethics/health care ethics among physicians and nurses. Therefore, it is important to aware and change attitude of healthcare professionals and improve their practice about healthcare ethics by continuous training, increase public awareness about healthcare delivery and client/patient right and strengthen competency based medical education and well-integrated course.

**Key Words:** KAP, Healthcare ethics, Nurses, Physician.

# CHAPTER ONE

## 1. INTRODUCTION

### 1.1. Background

Ethics is the application of values and moral rules to human actions. Health care providers are expected to not only have the skills and knowledge relevant to their field but also to be familiar with the ethical and legal expectations that arise out of the standard practices. Healthcare ethics is the branch of ethics that deals with moral issues in medical practice it has been built on four moral principles of autonomy, beneficence, non-maleficence, and justice. Even though they do not provide ordered rules, these principles can help physicians and nurses to make decisions when reflecting on moral issues that arise at work (1,2).

Medical ethics has been practiced in ancient times since 15th B.C. The Hippocratic Oath forms the moral ground of clinical practice, the classical basis of ethical aspects of clinical practice is redefined in different times like Nuremberg code and Helsinki declaration(3).

Even though healthcare ethics principles are universally accepted by different countries, each country can make certain modifications and formulate specific interpretations consistent with their existing culture, religious beliefs, social norms, laws of the land, and standards of medical practice in the health care system(4). On euthanasia, for example, there is a significant difference of opinion between national medical associations. Some associations condemn it but others are neutral and at least one, the Royal Dutch Medical Association, accepts it under certain conditions (5).

The Ethiopian, Food, Medicine and Healthcare Administration and Control Proclamation No.661/2009, Health Professionals' Code of Ethics has been established and documented through Regulation No. 299/2013 to assure health professionals ethics for the safety of clients and patients. Based on this regulation, Federal Health Professionals Ethics Committee (FHPEC) was reorganized in 2014 to examine, explore and propose appropriate administrative measures to the Ethiopian Food, Medicine and Healthcare Administration and Control Authority (EFMHACA) on complaints made for substandard health services, incompetent and unethical health professionals (6).

In addition professional ethical principles guide and strengthen a capacity for critical judgment, to ensure decisions about treatment are well grounded and appropriate(7).

Despite this health care decisions are based not only on clinical and technical grounds, but also on ethical grounds(2). In advance knowledge of healthcare ethics can help healthcare professionals to gain perspective about rights, responsibilities, concerns of health-care consumers, and inter professional collaboration of the health populations (8) so, knowledge of healthcare ethics and the taking of moral positions are an essential part of day to day clinical practice. Generally in borderline situations like decisions limiting therapy, fundamental values of the practice of medicine like respecting patient autonomy, maintaining confidentiality and responsibility for appropriate decisions about treatment must be maintained(9).

It is important that healthcare professionals are aware of their responsibility to the patient and also sensitive to ethical questions if quality health care is to be guaranteed(10). This study examined the knowledge, attitude, practice and associated factors towards healthcare ethics among physicians and nurses working in emergency departments at four government hospital in Addis Ababa, Ethiopia 2019.

## 1.2. Statement of the problem

Healthcare ethics is concerned with moral values and judgment as it applies to clinical practice, which involves consideration of risks versus benefits from particular procedures or health care decisions. Recently questions are being asked on medical ethics about the possible threats to the accepted principles of equity and social justice in the delivery of care within the health sector(11).Especially for Low- and middle-income countries(LAMIC) like Ethiopia it has been challenging because of the intersection of poverty, vulnerability, corruption in medicine and medical practice, corruption in medical education, medical regulation and healthcare ethics(12).

For the growing public concern regarding the ethical conduct of health care professionals the role of ethics has become a moral, legal and basic need for almost all stages of clinical practice(13). Dissatisfaction is reflected in expressions about poor ethical conduct, as patients expect health personnel to not only provide professional services but be accountable as well(14). Because of this there have been many reports of unethical and unprofessional behaviors in work environment. Even though accidents and mistakes are a predictable and even unavoidable but handling of those mistakes is the critical issue(15).

Even though, studies showed the importance of incorporating ethical and legal issues into medical curricula, there is an argument that doctors and nurses should be taught medical ethics simultaneously. The need of educating healthcare professionals about legal issues is evident as the law defines what they can or cannot do in terms of medical practice, relationship with patients. which is a quality of personal, professional, and organizational relationships (16,17).

Several studies in other countries showed a significant proportion of the doctors and nurses were unaware of major documents of healthcare ethics. A study in Nepal, Chennai and Nigeria identified awareness gaps in importance of healthcare ethics among healthcare providers in a government hospital(18–20).

A cross-sectional study conducted on medical and dental professionals of Jaipur city, Rajasthan showed that medical practitioners had slightly better attitude than dental practitioners(13).

A study in Nigeria identified gaps in practice of code of ethics among health care providers (20). Similarly study conducted in Ethiopia revealed that practice of code of ethics among medical doctors working in governmental and private hospitals in Addis Ababa was found to be poor(35). The Ethiopian government has made efforts to improve health care system that satisfies the community's health care needs. Ethiopian Medical Association (EMA) and 28 universities offer medical training. They have formulated strategies for healthcare ethics education for students and healthcare professional's development. This program called 'A Compassionate-Respectful-Caring Health Workforce (CRC)'. Even though, there is a shortage of teachers, and students have so far received little education on ethics(21).

A published article in the year 2017, on ethics capacity building in low-income countries: Ethiopia as a case study indicated that huge increase in the number of medical students and other healthcare professions leads to challenges in obtaining qualified teachers, organizing training programs, and securing sufficient time and resources to promote ethical competence in the clinic(22).

The emergency department (ED) environment is full of interruptions, with multiple interactions and a high density of decision-making which gives rise to several distinctive ethical concerns. Patients often arrive at ED unscheduled, with acute illnesses or injuries, acute changes in their mental state(unable to participate in their health care decision)and also physicians and nurses working in ED typically have had no prior relationship with their patients. All of these special conditions shape the moral dimensions of emergency healthcare ethics in important way(23,24).

Despite its importance, little studies were done about practice of healthcare ethics and the factors associated. This study was identified some of the major and important gaps of knowledge, attitude, practice and associated factors in recognizing the importance of using ethical principles in their profession, among healthcare providers working in emergency departments of selected government hospitals in Addis Ababa, Ethiopia 2019.

### 1.3. Significance of the study

This study gives insight about the current status of knowledge, attitude, practice and associated factors towards healthcare ethics among health care professionals. And it also gives important recommendations on gaps about basic principles of ethics for Ministry of Health and other concerned bodies. Especially for some countries like Ethiopia, who have been striving to improve their health care systems, it is very important to identify some important gaps on KAP and associated factors of medical ethics. It gives insight on how to resolve ethical questions that arise frequently in clinical setting and also it helps to recognize the importance of using ethical principles in their profession for a better intervention. In addition, this research will be a baseline for other studies which will be conducted in the area of medical ethics or healthcare ethics.



## CHAPTER TWO

### 2. LITERATURE REVIEW

#### 2.1. Knowledge on medical ethics

A descriptive cross-sectional study Bhairahawa, Nepal, show only 45% had adequate knowledge of ethics regarding nursing ethics. Whereas most of the respondents (53%) had adequate knowledge of nursing law than nursing ethics. Overall they had no satisfactory knowledge of ethics and law(25).

A study in Barbados, on medical doctors and nurses has shown that the frequency with which the respondents encountered ethical or legal problems varied widely from 'daily' to 'yearly'. One tenth (11%) of the doctors did not know the contents of the Hippocratic Oath whilst a quarter of nurses did not know the Nurses Code. Nuremberg Code and Helsinki Code were known only with less than 10% of individuals. Almost one third (29%) of doctors and 37% of nurses had no knowledge of an existing hospital ethics committee(26).

But a similar study conducted in Egypt shows over two-thirds of the residents(69.5%) had satisfactory knowledge of medical ethics (27). Another research done in Nigeria, Bida, inferred that most of the participants have good knowledge on nursing ethics and law (32).

A cross-sectional study conducted on medical and dental professionals of Jaipur city, Rajasthan in September 2013, indicated that knowledge of doctors having master's degree in both the groups (i.e. Dental Vs Medical practitioners) showed to have more knowledge than the undergraduates. On comparing the knowledge of the participants with institutional attachments results showed that there was statistical significance between those who were attached to an institution and those who had no attachment. Over all on knowledge scores it was observed that dental professionals were found to have more knowledge compared to medical practitioners (13).

A research conducted in two tertiary health care facilities in Northern Nigeria, has shown 307(76.2%) health care providers responded to detailed questions regarding day-to-day aspects of Medical ethical issues. One hundred sixty-eight(54.7%) of the respondents disagreed as to whether “Ethical conduct is important only to avoid legal action. Many respondents 135

(44.0%) agreed to adhering to “patient’s wishes”, on the other hand over two-third of the respondents 211 (68.7%) agreed that “doctor should do what is best” irrespective of the patient’s opinion. In general, this study has shown gaps in knowledge of healthcare ethics among health care providers (20). Another study in North India, Chennai 2013, found that most healthcare professionals are not aware of the importance of healthcare ethics (19). A similar research among physicians in Germany, Bavaria, has shown their knowledge of medical ethics to be inadequate (28).

In Pakistan 2014, among respondents of three groups (interns, junior residents and senior residents) encountered ethical problems on daily basis, a very high proportion of respondents (57%) had no knowledge of code of ethics of Pakistan Medical and Dental council. Helsinki declaration was known only in almost one sixth of individuals. In addition, more than 80% of respondents were not aware of Institutional ethics committee. Despite this, 59.5% of respondents felt their knowledge of health ethics to be adequate (31).

In the year 2015 Nepal, Kathmandu, a descriptive cross-sectional study among medical intern students of Maharajgunj Medical Campus, has shown that main contents of Hippocratic Oath were known to 98.8% while 60.9% knew the main contents of Nepal Medical Council (NMC) code of ethics. Great majority (91.3%) regard ethics as very important in medical profession. “Doctors know the best irrespective of patients’ opinion” was disagreed by only 39.1% indicating the paternalistic attitude. However, 78.3% were in favor of adhering to the patient’s wish. The most common source of knowledge on ethics was lectures/seminars (35.7%) followed by experience at work (24.5%), training (21.4%) and own reading (17.3%) (32).

A cross-sectional study conducted among doctors and nurses in the largest tertiary care teaching hospital of Nepal, has shown a significant proportion of the doctors and nurses were unaware of major documents of healthcare ethics. A high percentage of respondents said that their major source of information on healthcare ethics were lectures (67.5 % doctors versus 56.6 % nurses), books (62.4 % doctors versus 89.2 % nurses), and journals (59 % doctors versus 89.2 % nurses) (18).

A Cross-Sectional Survey, among Male and Female Physicians Working in a Public Sector Hospital of Karachi, Pakistan shows the participants encountered ethical decision-making situations in a diverse regularity, varying from ‘daily’ to ‘annually’. Less than one tenth (9%) of

the doctors were not aware of the primary contents of the Hippocratic Oath, and 89% of these were junior doctors. Details of Nuremberg Code and Helsinki Code were known only to 4% of the total sample (33).

Another study in Northern Nigeria, in two tertiary health care facilities, has shown gaps in knowledge and practice of healthcare ethics among health care providers(20).A study conducted in India has also indicated gaps in the knowledge about practical aspects of health care ethics among physicians and nurses (14). Likewise in Coimbatore research the same result was observed among students (34).

Correspondingly, a research in North India, Chennai, found that most of healthcare professionals are not aware of the importance of healthcare ethics (19). Another study in Lahore, Pakistan also shows that there was a general unawareness regarding medical law and ethics among all levels of respondent doctors (29).

Across sectional study among final year medical students, in Coimbatore, India, has indicated a gap exist in knowledge about practical aspects of health care. Contradictory views in different areas of ethical issues like dealing with treatment of patients and adhering to patient wishes exist. The study result showed majority 87% of students felt patient's wishes must always be adhered to. In contrast 65% of students believe that doctors must do what is best irrespective of patients' opinion. About 64.7% of them disagreed consent is required only in case of operations and not for tests and medication (34).

In 2013 a study conducted in Critical Care & Emergency Nursing Department Faculty of Nursing, Alexandria University, Egypt on measuring changes in attitude, practice and knowledge of undergraduate nursing students after receiving an educational intervention in ethical comportment in critical care nursing using quasi-experimental research design. There were changes in the level of knowledge of student nurses towards items of ethical comportment pre and post the educational intervention. As 58 (82.9%) students had poor knowledge before the educational intervention and improved to be 63 (90%) students' knowledge were good (30).

## **2.2. Attitude towards medical ethics**

A study conducted in Egypt, among physician residents of University of Alexandria hospitals, has revealed most of the residents (60.2%) had satisfactory perceptions regarding ethical issues. The lowest perception score was in the domain of disclosing medical errors (27).

A cross-sectional study conducted on medical and dental professionals of Jaipur city; Rajasthan has shown that medical practitioners had slightly better attitude than dental practitioners. However, the difference in the attitude of dental and medical practitioners showed no statistical significance (13).

Another cross-sectional study conducted, in the largest tertiary care teaching hospital of Nepal, also showed more nurses had agreement than doctors on the tested statements pertaining to different aspects of healthcare ethics. They had disagreements only on statements for need of integration of medical ethics in undergraduate curricula (97.4 % doctors and 81.3 % nurses), paternalistic attitude of doctor was disagreed more by doctors (20.3 % doctors and 9.3 % nurses). Notably, only few (9.3 % doctors and 14.0 % nurses) doctors lean towards physician-assisted dying(18).

In the year 2015 Nepal, Kathmandu, among medical undergraduate interns participated in the study. On the statement of healthcare providers know the best irrespective of patients' opinion was disagreed by only 39.1% indicating the paternalistic attitude. However, 78.3% were in favor of adhering to the patient's wish (32).

Although, a similar study in two tertiary health care facilities in Northern Nigeria 2015, out of 307(76.2%) health care providers responded to detailed questions regarding day-to-day aspects of Medical ethical issues. One hundred sixty-eight (54.7%) of the respondents disagreed as to whether "Ethical conduct is important only to avoid legal action. Many respondents 135 (44.0%) agreed to adhering to "patient's wishes". In addition, over two-third of the respondents 211 (68.7%) agreed that "doctor should do what is best" irrespective of the patient's opinion (20).

In 2015 a cross-sectional descriptive study done in Federal Medical Centre, Bida, Nigeria revealed that the participating nurses possess considerably good attitude of nursing ethics and law. More than half of the participants 72 (51%) believed that patients wish must always be

adhered to. On the contrary, almost two third 104 (74%) opposed the thought to oblige patient's wishes to die. Likewise, 116 (83%) of the participants admitted that consent should be obtained for both operations and nursing procedures. Three fourth of the participants 104 (74%) suggested that adhering to code of ethics will help in reducing ethical and legal issues(32).

In Coimbatore India, during July 2016, nearly half 47% of students were of opinion privacy of the patient must not be ignored for benefit of larger group. Many respondents had neutral opinion to some questions may indicate their lack of awareness or knowledge in that area and their inability to decide (34).

In 2013, a study conducted in Critical Care & Emergency Nursing Department Faculty of Nursing, Alexandria University, Egypt using quasi-experimental research design. Students' favorable attitude towards items of ethical was improved after the educational intervention on ethical compartment from 2.86% to 97.14 % (30).

### **2.3. Practice on medical ethics**

A cross sectional study in Bhairahawa, Nepal shows half of the respondents do practice on nursing ethics and law with a mean practice score of respondents 10.28 (25).

A cross-sectional study conducted on medical and dental professionals of Jaipur city, Rajasthan showed that the practice scores of the participants were compared among both the groups(i.e. Dental Vs Medical practitioners) on the basis of their profession, it was observed that dental practitioners showed slightly better practice behavior than medical practitioners but the difference in practice behavior was not statistically significant (13).

In the year 2015 a cross-sectional descriptive study at Federal Medical Centre, Bida, Nigeria shows that the participating nurses possess considerably has good practice of nursing ethics and law (32).

Another study conducted in Critical Care & Emergency Nursing Department Faculty of Nursing, Alexandria University, Egypt also has shown only eight (11.43%) students had good practical skills before the educational intervention and the level of students performance was increased after the educational intervention to be 62 (88.57%) for students who had good practical skills (30).

Another study conducted in Egypt, among physician residents of University of Alexandria hospitals in 2010, only 48.0% of the residents were compliant with the principles of medical ethics in practice and 52.0% of patients were dissatisfied with their treating physicians. The study identified areas of unsatisfactory practices towards ethical issues (27).

Likewise, in a cross-sectional quantitative study triangulated with qualitative study on practice of code of ethics and associated factors among medical doctors in Addis Ababa, Ethiopia. Witnessed that only 30.4% of medical doctors had good practice of code of ethics. This indicates that practice of code of ethics among medical doctors in Addis Ababa is poor (35).

### **2.3 Factors Affecting Knowledge, Attitude and Practice of Medical Ethics**

A cross-sectional descriptive study conducted in, Bida, Nigeria identified three factors of professional progression in this study; professional qualification ( $p=.015$ ), years of experience ( $p=.000$ ) and rank ( $p=.002$ ) had visible effects on knowledge, attitude and practice of nursing ethics and law among the participants (32).

A study conducted in India, Barbados, Pakistan Lahore, Nepal, Northern Nigeria inferred that there was a statistically significant difference between different qualifications of physicians and nurses, medical and dental professions, physicians and non-physicians attitudes of healthcare ethics/medical ethics (14, 18, 20, 26, 29). In addition to this a research in Pakistan, Lahore, profession has shown significant association on knowledge of medical ethics (29).

Another study in Pakistan, inferred that among respondents of three groups (interns, junior residents and senior residents), there was difference between interns, junior and senior residents with respect to their views about perception of medical ethics (31).

A Cross-Sectional Survey, among Male and Female Physicians at Karachi, Pakistan has shown female physicians had a stronger opinion as compared to male physicians regarding practice of ethics (33).

Another research done in Egypt, Alexandria, has shown a significant sex differences were noted as 61.8% of woman physicians were compliant with the principles of medical ethics compared with 31.2% of men on Physicians' observed compliance to ethical practices (27). A similar research done in Karachi, Pakistan, has shown the female participants have 1.65 times the odds of having a higher knowledge about medical ethics, than male participants(33).

A cross-sectional study conducted on medical and dental professionals of Jaipur city, Rajasthan showed that among both the groups on the basis of their profession, has inferred that the attitude of the participants varied with age, their work experience, their place of practice (clinical, Hospital or both) and qualification in which these differences were statistically significant. Best practice behavior was found in the age group from 10-20 years (13).

Institution based cross sectional quantitative study triangulated with qualitative among medical doctors in Addis Ababa, Ethiopia shows factors associated with practice of code of ethics were age, type of hospital, knowledge, attitude, lack of motivation and medical ethics course(35).

In 2013 a study was conducted in Critical Care & Emergency Nursing Department Faculty of Nursing, Alexandria University, Egypt. Shows the levels of students' attitude, knowledge and practice towards items of ethical comportment increased after receiving an educational intervention in ethical comportment and the differences between attitude, knowledge and practice of student nurses towards items of ethical comportment pre and post the educational intervention were statistically significant (30).

A research done among Physicians in Germany, Bavaria, has revealed that attitudes to ethical questions were found to be correlated with the length of time the physicians had been in practice (28).

In this study we assessed KAP and associated factors of healthcare ethics among physicians and nurses working in emergency departments which determine quality of health care service.

## 2.4 Conceptual frame work of the study

This conceptual frame work of the study was adapted from after reviewed literatures(13, 17, 30, 32, 33, 35).

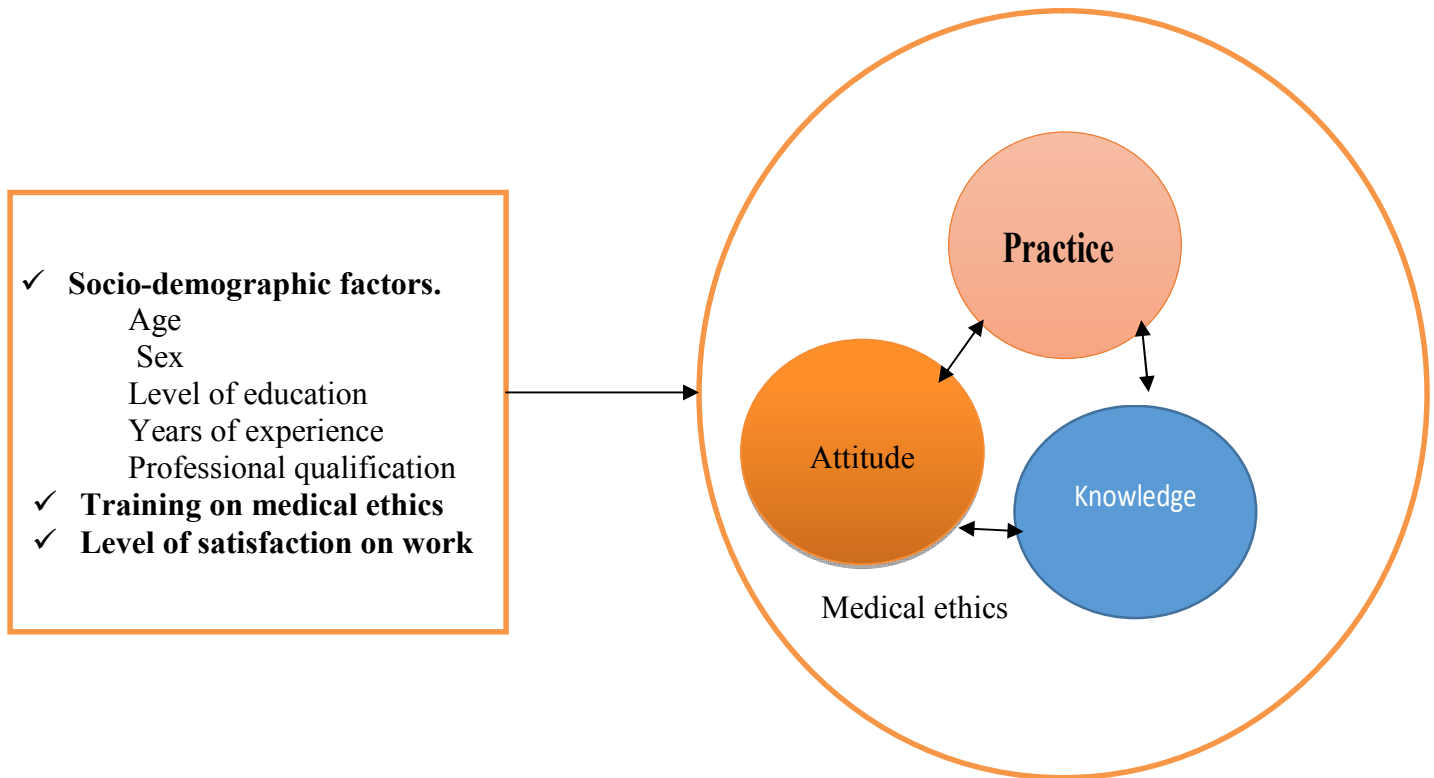


Figure 1. Conceptual frame work of the study adapted from reviewed literatures.



## CHAPTER THREE

### 3. OBJECTIVES

#### 3.1. General Objective

The main objective of this study is to assess knowledge, attitude, practice and associated factors towards healthcare ethics among physicians and nurses working in emergency departments in four selected governmental hospitals in Addis Ababa, Ethiopia in 2019.

#### 3.2. Specific Objectives

- To determine the knowledge of healthcare ethics among physicians and nurses working in emergency departments of selected hospitals in Addis Ababa, Ethiopia 2019.
- To assess the attitude on healthcare ethics among physicians and nurses working in emergency departments of selected hospitals in Addis Ababa, Ethiopia 2019.
- To describe healthcare ethics practice among physicians and nurses working in emergency departments of selected hospitals in Addis Ababa, Ethiopia 2019.
- To identify factors affecting knowledge attitude and practice towards healthcare ethics among physicians and nurses working in emergency departments of selected hospitals in Addis Ababa, Ethiopia 2019.

## CHAPTER FOUR

### 4. METHODS AND MATERIALS

#### 4.1. Study design

Institution based cross-sectional study design was used.

#### 4.2. Study area

The study was conducted in four selected governmental hospitals in Addis Ababa, Ethiopia. The city consists a total of 79 health facilities including 14 hospitals out of which 5 hospitals owned by Addis Ababa Health Bureau, 4 hospitals owned by Federal Ministry of Health (Central), 1 Addis Ababa University, 2 Ministry of defense, 1 police force hospitals which provide different health services. In addition, there are about 23 health center, 9 clinics, and 34 health posts. Among those 14 hospitals Torhayiloch and Police force hospitals were excluded due to ethical issues, Ammanuel mental health hospital and Ghandi memorial hospitals were excluded because of specific care (mental health and maternity service) and Alert hospital is where pre-test was done. Out of 9 hospitals the study was conducted at Tkur Anbesa specialized hospital, Yekatit 12 Medical college hospital, Addis Ababa Burn Emergency and Trauma (AaBET) hospital and Zewiditu memorial hospitals in Addis Ababa city where they provide emergency services (36).

**TKUR ANBESA-** hospital is under the umbrella of Addis Ababa University. It is located in Lideta Sub City, Keble 07. This hospital is established in 1956 E.C and under Addis Ababa University's School of Medicine which is a center for training practical and research hospital for under graduate and post graduate medical students, dentists, nurses, pharmacists, laboratory technologists and emergence medicine & critical care nurses in MSc also others training are given. This hospital receives those trauma and non-trauma patients and serves as a referral hospital from all regions of Ethiopia. This hospital has many departments including emergency medicine residency and MSc programs and staffs have much service experience and give health care service assigned in shifts. In emergency care departments staffed with 39 physicians (32 emergency residents, 7 emergency senior specialists) and 57 nurses (47 BSc and 10 Emergency Medicine and Critical Care Nursing/EMCCN).

**YEKATIT 12 MEDICAL COLLEGE HOSPITAL** is located at Arada sub city Woreda 6 around six kilo campus of Addis Ababa University. The Hospital was established in 1915 (E.C) and has 12 Departments. It is under the Addis Ababa health Bureau. The emergency care unit is one of the special departments of the Hospital staffed with 20 nurses (2 EMCCN & 18 BSC) and 8 physicians (6 GP & 2 emergency seniors).

**ZEWDITU MEMORIAL HOSPITAL:** is in Kirkose sub city woreda 08 Addis Ababa; Ethiopia. Today Zewiditu hospital is administered by Federal Ministry of Health (FMOH) under Addis Ababa health bureau. It has totally 182 beds, 277 nursing staff and 62 staff physicians. This hospital receives those trauma and non-trauma patients and serves as a referral hospital. Critical Emergency cases referred from other hospitals and health center and clinics. The emergency care unit is one of the special departments of the Hospital staffed with 4 General practitioners and 24 nurses.

**ADDIS ABABA BURN EMERGENCY AND TRAUMA (AaBET) HOSPITAL** is an affiliate of St. Paul's hospital & it is established on 15, July, 2015 G.C and located in Arada Sub City, AaBET hospital is also a referral teaching hospital which is managed by the FMOH. It has totally 158 beds, 257 nursing staff this hospital receives those trauma, non-trauma & burn injury patients, and serves as a referral hospital. Critical Emergency cases referred from other hospitals and health institution. The emergency care unit is one of the special departments of the Hospital staffed with 55 physicians (49 emergency residents and 6 seniors) and 76 nurses.

### 4.3. Study period

The study was conducted from April 1-28, 2019.

### 4.4. Source population

The source population was all physicians and Nurses working in adult ED of all governmental hospitals in Addis Ababa, Ethiopia.

### 4.5. Study population

The study population was all physicians and Nurses working in adult ED of four selected government hospitals during the study period.

## 4.6. Study unit

The study unit was individual physicians and nurses who had fulfilled the inclusion criteria.

## 4.7. Eligibility criteria

### 4.7.1. Inclusion criteria

- ✓ All physicians and nurses currently assigned and working in emergency departments in selected governmental hospitals.

### 4.7.2. Exclusion criteria

- ✓ All physicians and nurses who works in administrative areas doesn't have clinical involvement.
- ✓ All physicians and nurses who were not available at work place during data collection period like those in full time school schedule, on maternity leave and annual leave.

## 4.8. Sample size determination

The required sample size was calculated using a formula for a single population proportion formula by considering 50% prevalence of KAP on healthcare ethics and 95% confidence interval and 5% margin of error.

$$n = Z^2 pq / d^2$$

Where n= the desired sample size (if the target population is greater than 10,000)

z = the standard normal deviate at 95% confidence level (=1.96).

p = the proportion in the target population estimated KAP to medical ethics. (Since no studies have been done on these subjects 50% was used to determine the minimum sample size).

$$q = 1-p$$

d = level of precision (set at +/- 5 % or 0.05)

$$\text{Then: } n = (1.96)^2 (.50) (.50) / (0.05)^2 = \underline{384}$$

Since total target population was less than 10,000 we use population correction formula.

$$n_{\text{new}} = \frac{n_0}{1 + \frac{n_0}{N}}$$

Where: - $n_{new}$ - new sample size,  $n_o$ -previously calculated sample size,  $N$ -target population

$$=384/1+384/528$$

$$= 222$$

$$=222 + 22(10 \% \text{ non-response rate})$$

$$n_{new} = \underline{244}$$

#### 4.9. Sampling procedure

Simple random sampling technique was used to select 4 out of 9 governmental hospitals of them they were randomly selected. This are Tkur Anbesa specialized hospital, Yekatit-12 Medical college hospital, AaBET hospital and Zewditu memorial hospital at Addis Ababa city where they provide emergency service. The total number of healthcare providers working in emergency unit of those four governmental hospitals were proportional with the calculated sample size, so a total of 240 healthcare providers which fulfills the inclusion criteria were included table 1.

Table 1 Types of hospitals study participants working.

No	Type of Hospitals	Physicians	Nurses
1	AaBET Hospital	26	68
2	TkurAnbesa Specialized Hospital	26	56
3	Zewditu Memorial Hospital	4	24
4	Yekatit 12 Medical College Hospital	8	18

## 4.10. Variables

### 4.10.1 Dependent Variable

- Knowledge on healthcare ethics.
- Attitude towards healthcare ethics.
- Practice of healthcare ethics.

### 4.10.2. Independent variables

- ❖ Socio-demographic factors.
  - Age
  - Sex
  - Level of education
  - Years of experience
  - Medical ethics course
  - Professional qualification
  - Training on medical ethics
  - Level of satisfaction on work

#### 4.11. Operational definition

- ✓ **Knowledge-** in this study it refers to the correct question of response of the subject regarding the healthcare ethics(20).

**Good knowledge:** refers for those study participants who scored point more than mean of knowledge questions correctly.

**Poor knowledge:** refers for those study participants who score less than or equal mean point knowledge questions correctly.

- ✓ **Attitude:** are the Perception/feeling that study participants would have towards healthcare ethics attitude questions(20).

**Favorable attitude:** refers to those study participants who scored point greater than the mean of attitude questions.

**Unfavorable attitude:** refers to those study participants who scored point equal to or less than the mean of attitude questions.

- ✓ **Practice:** in this study it refers to the actions done by the physicians and nurses on the subject regarding healthcare ethics(20).

**Good Practice:** refers to those study participants who correctly respond to practice questions and score above the mean value.

**Poor practice:** refers to those study participants who correctly respond to practice questions and score point equal to or less than mean of practice questions.

## **4.12. Data collection Tool and procedure**

### **4.12.1. Data Collection Tool**

For this study structured questionnaire which was adapted from different literatures was used for data collection(18–20). The self-administered close ended questionnaire was prepared in English language. The questionnaire contains four sections: socio-demographic variables (age, sex, educational status and profession), knowledge, attitude and practice questions. A total of 52 item questionnaire were used. The first part of the questionnaire consists of socio demographic information. The second part questions related with knowledge on healthcare ethics like definition of healthcare ethics and ethics. The third part of questionnaire consists of 16 questions on attitude like statements pertaining to adherence to patient will, confidentiality, autonomy, paternalism, physician-assisted dying, and informed consent. The final part consists with 17 questions on practice of medical ethics. The participant's gradation of the response was provided in a Likert scale ranging from 1 to 5 (1-strongly disagree, 2-disagree, 3-not sure, 4-agree and 5-strongly agree) for the third and fourth part of questionnaires. Study population was explained about the nature and purpose of the study and requested to fill up the questionnaires which were distributed by data collectors in the emergency departments. Informed consent of the participants was taken.

### **4.12.2. Data collection procedure**

The data collection process was taking place from April 1-28, 2019 by using pre tested self-administered questionnaires. One days training was given for four data collectors and one supervisor on data collection tools.

## **4.13. Data Quality control**

Data consistency and completeness was checked and data entry was done in daily basis by supervisor and immediate correction had been taken. For those who were absent during data collection three times revisit was done and further was consider as non-respondent. Moreover, principal investigator and supervisors were made supervision on the data collection process to check the accuracy and validity of the questionnaire, pre-testing of the questionnaire was done before 2 weeks of actual data collection periods on five percent (5%) of the actual sample prior to the actual study period and adjustment was done accordingly.



#### **4.14. Data entry and analysis**

The collected quantitative data was cleaned, coded and entered in to EPI info v.7.1 and was exported to SPSS version 24 statistical package for analysis. Data recording process a descriptive statistical analysis was used to show the characteristics of survey participants. Study participants' socio-demographic characteristics, knowledge, attitude and practice were described using the relevant descriptive statistics. The adequacy of the final multiple binary Logistic regression model was checked using the Hosmer and Lemeshow goodness of fit test and it was fit. The association between the dependent and independent variables were analyzed using Binary Logistic Regression Model. Those variables in bivariate analysis whose p-value less than 0.20 were included in multivariate logistic regression not to miss associated factors. Finally, variables whose p value less than 0.05 with 95% CI in the multivariable logistic regression were considered as statistically significant association and they were interpreted by using their adjusted odds ratio.

#### **4.15. Ethical Considerations**

Ethical clearance was obtained from the ethical clearance review board of AAU, School of Health Sciences and Emergency Medicine and Critical Care Department, Addis Ababa Public Health Research and Emergency Management Directorate and support letter was submitted to each selected organization at which the study was conducted. Written informed consent was taken from each study participants. Privacy and confidentiality was maintained throughout the study period; each questionnaire was coded without any personal identification and support letter was obtained from each selected organization.

#### **4.16. Dissemination of result**

The finding of this study will be presented to department of emergency medicine, College of Health Science, Addis Ababa University. The result of this study copies will be given to the Ministry of Health, Addis Ababa Public Health Research and Emergency Management Directorate, Ethiopian Society of Emergency Professionals, to the hospitals at which the study was conducted and to those governmental and non-governmental organizations that potentially could benefit from the study outcome. Effort will be applied to present this study in different professional associations and conferences and the paper will be submitted for publication in peer reviewed journals.

## CHAPTER FIVE

### 5. RESULTS

#### 5.1. Socio-demographic characteristics of study participants

A total of 230 health care providers from four selected governmental hospitals of emergency departments were included in our study. Five questionnaires were discarded because of data incompleteness and 5 respondents were not available during data collection period as a result the response rate was 95.8%. Nearly two third, 138 (60 %) of the study participants were males and just above two third (78.8 %) of the study participants were in the age group of 25–34 years. Regarding qualification most, 166 (72.2%) of were nurses. The mean year of working experience was 4 years  $\pm$  SD 2.74. The average mean monthly income for physicians and nurses were 10,021.00 and 5,273.00 Ethiopian birr respectively. Thirteen (5.7%) of study participants were very satisfied with their work. Majority, of respondents (92.2%) were taking ethics course during their education. About 96(41.7%) of them have trained on healthcare ethics after school table 2.

Table 2: Socio-demographics characteristics of study participants in Addis Ababa, 2019.

Variable		Frequency	Percent(%)
Gender	Male	138	60.0
	Female	92	40.0
Age in years (mean 28.7 $\pm$ SD 3.57)	<24	32	13.9
	25-34	179	77.8
	$\geq$ 34	19	8.3
Profession	Physician	64	27.8
	Nurse	166	72.2
Ethics course during your medical education	Yes	212	92.2
	No	18	7.8
Having training on medical ethics/health care ethics after school	Yes	134	58.3
	No	96	41.7
Level of satisfaction on work	Very satisfied	13	5.7
	Satisfied	89	38.7
	Not sure	41	17.8
	Dissatisfied	55	23.9
	Very dissatisfied	32	13.9
Work experience in years	<5year	177	77.0
	5-10	51	22.2
	$\geq$ 10	2	0.9

Nearly one quarter 49(21.3%) of study participants know the existence of Federal Health Professionals Ethics Committee and its powers and duties (table 3).

Table 3:General information of study participants about Federal Health Professionals Ethics Committee.

Variable	Know	Don't Know
Existence of Federal Health Professionals Ethics Committee	94(40.9%)	136(59.1%)
The powers and duties of Federal Health Professional Ethics Committee	50(52.1%)	46(47.9%)

Regarding instruments for learning healthcare ethics 24.3% of them prefer books and lectures and only 3% of them preferred case conferences see fig 2.

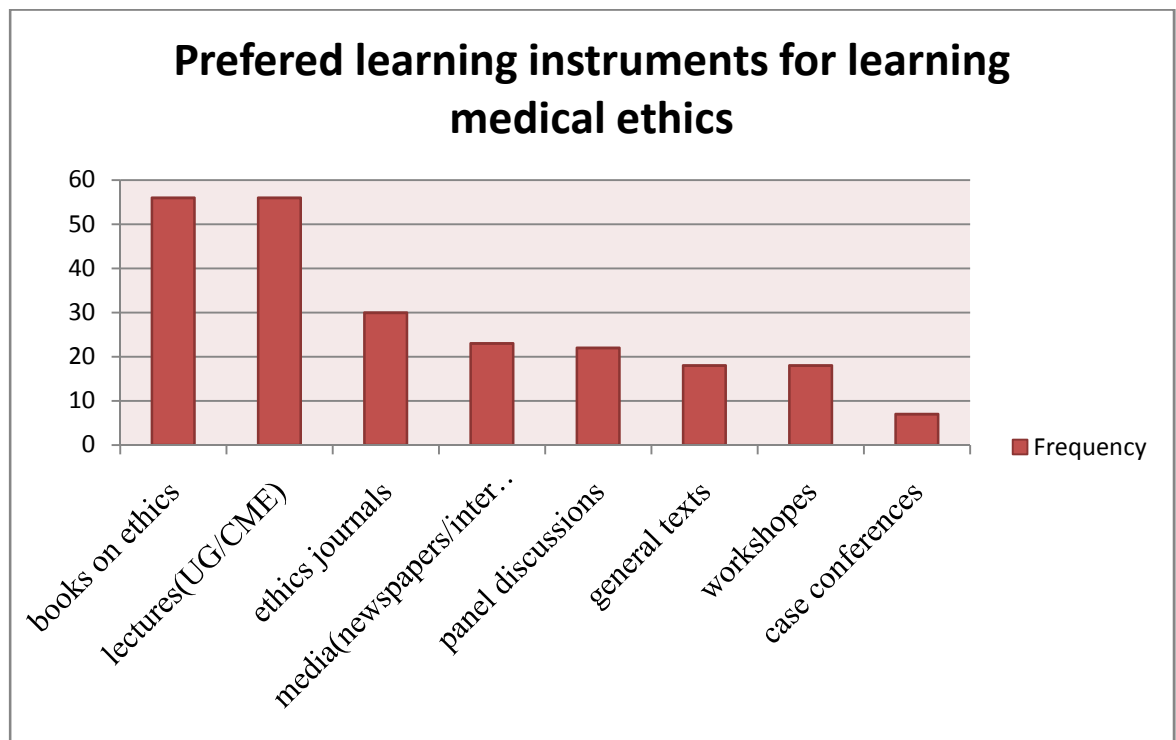


Figure 2 : Preferred instruments of participants for learning healthcare ethics.

About hospitals 94(40.9%) were from AaBET hospital and 26(11.3%) were from Yekatit 12 medical college hospital fig 3.

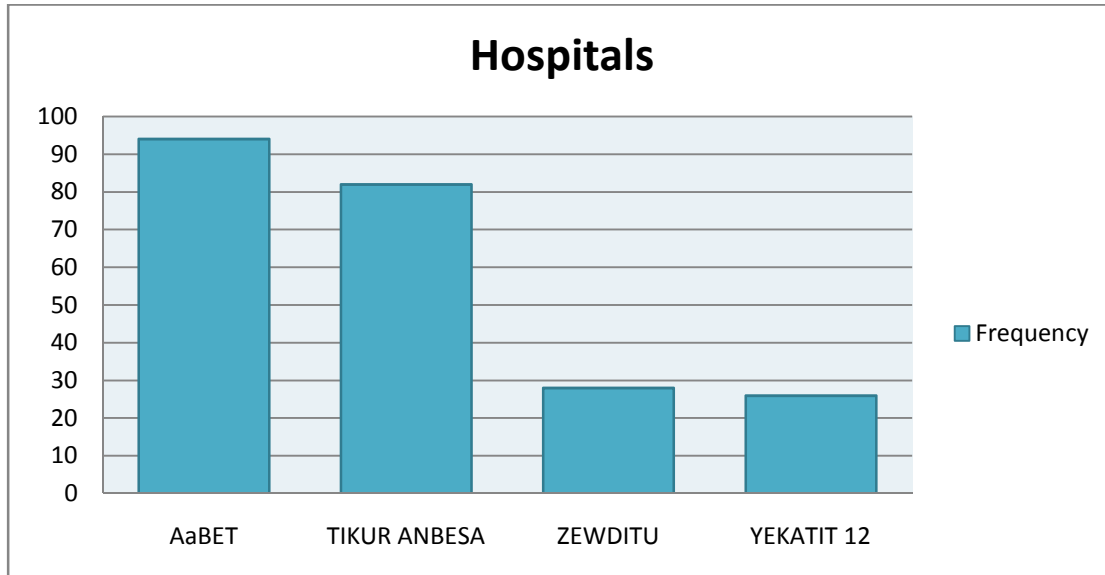


Figure 3: Type of hospitals at which study participants were working.

## 5.2. Participants' knowledge about healthcare ethics

According to the response obtained from study participants, 101 (61.3%) had good knowledge on healthcare ethics (scored greater than the mean 4.92 and  $\pm$  SD 1.37) out of 8 knowledge statement questions. Table 4 of below show about 134 (58.3%) of study participants responded correctly for the statement "definition of ethics." More than half of participants did not respond for the statement of definition of medical ethics/healthcare ethics. On the other hand, 147(63.9%) of them had mentioned at least four out of 8 patients' rights. Almost all 62(96.6%) of physicians and 163 (98.2%) of nurses believed that healthcare ethics is an essential subject for physicians and nurses. Majority, of participants (89.8%) agreed on rapport can be established between healthcare professionals and patient in medical practice. Just below ten percent (7.8%) of physicians and 9.6% nurses disagreed on patient has the right for a second medical opinion.

Table 4 : Knowledge study participants on healthcare ethics in Addis Ababa, Ethiopia 2019.

Knowledge statements on healthcare ethics		Physician		Nurse	
		Frequency	Percent(%)	Frequency	Percent(%)
Definition of ethics	Yes	46	71.9	88	53.0
	No	18	28.1	78	47.0
Definition of medical ethics/health care ethics	Yes	40	62.5	70	42.2
	No	24	37.5	96	57.8
Definition of basic ethical principles*	Yes	47	73.4	100	60.2
	No	17	26.6	66	39.8
Healthcare ethics is an essential subject for physicians and nurses	Yes	62	96.9	163	98.2
	No	2	3.1	3	1.8
Disclosure of medical reports is a good idea	Yes	48	75.0	88	53.0
	No	16	25.0	78	47.0
Rapport be established between a physician or nurses and the patient in medical practice	Yes	56	87.5	134	80.7
	No	8	12.5	32	19.3
Patient have the right to a second medical opinion	Yes	59	92.2	150	90.4
	No	5	7.8	16	9.6
Medical treatments should rely heavily on drugs	Yes	6	9.4	52	31.3
	No	58	90.6	114	68.7

Note: \*Participants was considered knowledgeable if he/she mentioned at least 4 (out of 8) of patient' rights: privacy, informed consent, veracity, beneficence, non-maleficence, autonomy, justice and confidentiality.

### 5.3. Physicians' and Nurses' Attitude on issues of healthcare ethics

It was found that 122(53%) of study participants in this study has shown unfavorable attitude towards medical ethics. Therefore, according to the response obtained from study participants almost all 59(92.2%) of Physicians and 112(67.5%) of nurses were disagreed on the statement of Ethical conduct is important only to avoid legal action. On patients' autonomicity 133(57.8%) agreed that "During treatment, the patient's wishes must always be adhered." Ninety-two(40%) of participants agreed that "The doctor should do what is best irrespective of the patient's opinion." on the question. On the statement "if a patient refused a particular treatment for religious reasons" 66(28.7%) agreed they will refer the patient to another doctor while,39(17%) were uncertain. Regarding to confidentiality about 116(50.4%) agreed that close relatives must always be told about patient's condition and 44(19.1%)of participants disagreed on hospital staff

can use patient picture in public forum without the patient consent. Twelve(18.8%) physicians 53 (39,1%) nurses agreed whether refuse to treat patients who behave violently. In case of euthanasia 161(70%) disagreed table 5.

Table 5: Distribution of results on perception of participants on healthcare ethics in Addis Ababa Ethiopia 2019.

Statements on healthcare ethics attitudes		Physician		Nurse	
		Frequency	Percent(%)	Frequency	Percent(%)
Ethical conduct is important only to avoid legal action	Disagree	59	92.2	112	67.5
	Agree	5	7.8	54	32.5
An interest in learning medical ethics/health care ethics	Disagree	5	7.8	20	12.0
	Agree	59	92.2	146	88.0
Does patient's wishes must always be adhered	Disagree	23	35.9	74	44.6
	Agree	41	64.1	92	55.4
Physician or nurses should do what is best irrespective of patient's opinion	Disagree	55	85.9	83	50.0
	Agree	9	14.1	83	50.0
patient should always be told if something is wrong	Disagree	26	40.6	66	39.8
	Agree	38	59.4	100	60.2
If there is disagreement between patients/families and health care professionals about treatment decisions, healthcare professionals should be final	Disagree	47	73.4	117	70.5
	Agree	17	26.6	49	29.5
If a Patient refuse treatment due to beliefs should be instructed to find another doctor	Disagree	38	59.4	69	41.6
	Agree	26	40.6	97	58.4
patients need to consent only for operations but not for tests or medications	Disagree	53	82.8	119	71.7
	Agree	11	17.2	47	28.3
Children should never be treated without the consent of their parents or guardians (except in an emergency)	Disagree	24	37.5	52	31.3
	Agree	40	62.5	114	68.7
Confidential information can only be disclosed if the patient gives explicit consent or if expressly provided for in the law	Disagree	9	14.1	46	27.7
	Agree	55	85.9	120	72.3
Hospital staff can use patient picture in public forum without the patient consent	Disagree	56	87.5	130	78.3
	Agree	8	12.5	36	21.7
Close relatives should always be told about a patient's condition	Disagree	35	54.7	79	47.6
	Agree	29	45.3	87	52.4
Doctors or nurses should refuse to treat patients who behave violently	Disagree	52	81.3	113	68.1
	Agree	12	18.8	53	31.9
healthcare professionals are influenced by drug company inducements, including gifts	Disagree	43	67.2	117	70.5
	Agree	21	32.8	49	29.5
Health care worker can't refuse to do an abortion if the law allows it to be performed	Disagree	35	54.7	82	49.4
	Agree	29	45.3	84	50.6
Patient who wishes to die should be assisted in doing so	Disagree	48	75.0	113	68.1
	Agree	16	25.0	53	31.9

#### **5.4. Physicians' and Nurses' practice on issues of healthcare ethics**

In this study it was showed that more than half of study participants 113(56.96%) had poor practice of healthcare ethics. More specifically, the present study showed that about 187(81.3%) of study participants were agreed on whether to adhered with the patients wish at all times and 96(58.3%) of study respondents disagreed to take consent from the patients only for operations but not for tests or medications. Among our study participants 106(45%) disagreed to do what is best for the patient irrespective of their opinion. On statements about confidentiality 58.7% of Physicians and nurses agreed " to tell close relatives about a patient's condition." About 176(77%) of them were disagreed to use patient picture in public forum without the patient consent. Concerning euthanasia, about 184(80%) disagreed on the statement " If a Patient wishes to die, I assure or help him/her in doing so no matter what their illness". On whether or not drug companies influence healthcare professionals by inducements, including gifts 49(21.3%)of them had agreed table 6.

Table 6: Distribution of study subjects on their practice on healthcare ethics in Addis Ababa, Ethiopia 2019.

Statements on practice of healthcare ethics	Physician		Nurse		
	No	%	No	%	
Adhere with the patients wish at all times	Disagree	17	39.5	26	60.5
	Agree	47	25.1	140	74.9
Took informed consent from patient (before history-taking, physical examination or exposing any body part)	disagree	33	41.3	47	58.8
	Agree	31	20.7	119	79.3
During examination or procedure ensure nobody present other than medical team	Disagree	27	32.1	57	67.9
	Agree	37	25.3	109	74.7
Do what is best for the patient irrespective of their opinion	Disagree	41	38.7	65	61.3
	Agree	23	18.5	101	81.5
Tell the patient if something is wrong during the procedure or treatment	Disagree	19	30.6	43	69.4
	Agree	45	26.8	123	73.2
If there is disagreement between patients/families and health care professionals about treatment decisions health professional's decision should be final	Disagree	41	30.1	95	69.9
	Agree	23	24.5	71	75.5
If a Patient refuse treatment due to beliefs instruct the patient to find another doctor	Disagree	32	37.2	54	62.8
	Agree	32	22.2	112	77.8
Consent from the patients only for operations but not for tests or medications	Disagree	36	26.9	98	73.1
	Agree	28	29.2	68	70.8
Do not treat Children without the consent of their parents or guardians (except in an emergency)	Disagree	23	26.7	63	73.3
	Agree	41	28.5	103	71.5
Use patient picture in public forum without the patient consent	Disagree	51	29.1	124	70.9
	Agree	13	23.6	42	76.4
Told Close relatives about a patient's condition	Disagree	29	30.5	66	69.5
	Agree	35	25.9	100	74.1
Disclose patient's confidential information if they give explicit consent or if expressly provided for in the law	Disagree	11	21.6	40	78.4
	Agree	53	29.6	126	70.4
Refuse to treat or deal with patients who behave violently	Disagree	44	28.2	112	71.8
	Agree	20	27.0	54	73.0
Cannot refuse to do abortion if law allows it to be performed	Disagree	32	27.4	85	72.6
	Agree	32	28.3	81	71.7
If a Patient wishes to die, I assure or help him/her in doing so no matter what their illness.	Disagree	58	31.5	126	68.5
	Agree	6	13.0	40	87.0
Prescribe medication or investigations that was not indicated (e.g. only for research)	Disagree	55	30.4	126	69.6
	Agree	9	18.4	40	81.6
Drug companies influence Healthcare professionals by inducements, including gifts	Disagree	47	29.2	114	70.8
	Agree	17	24.6	52	75.4



## **5.5.1. ASSOCIATED FACTORS ON HEALTHCARE ETHICS KAP**

### **5.5.1.1. Factors associated on knowledge of healthcare ethics**

Using bivariate analysis age, gender, profession, training, attitude towards healthcare ethics and practice of healthcare ethics showed association with knowledge of healthcare ethics among physicians and nurses at 20% level of significance. On the other hand, in the multivariable Binary Logistic regression only profession, training and attitude had shown significantly associated with healthcare ethics.

Accordingly, on professional qualification physicians were 2.4 times more likely to have good knowledge of healthcare ethics than nursing profession (AOR=2.40, 95% CI= 1.134-5.068).

Healthcare professionals who were taking training on healthcare ethics were about 3.96 times more likely to have good knowledge of healthcare ethics than those who didn't take training on medical ethics(AOR=3.96, 95% CI=2.034-7.720).

Healthcare professionals with favorable attitude were about 4.48 times more likely to have good knowledge of healthcare ethics than those with unfavorable attitude towards healthcare ethics(AOR=4.48, 95% CI:2.277-8.822) table 7.

Table 7: Factors associated with knowledge of healthcare ethics study participants in Addis Ababa, Ethiopia 2019.

Variables	Knowledge		COR(95% CI)	AOR(95% CI)	p-value	
	Good	Poor				
Age	<24	19	13	1.624(0.517, 5.098)	1.63(0.438,6.072)	0.406
	24-34	113	66	1.902 (0.735,4.921)	1.97(0.643, 6.027)	0.185
	>=34	9	10	1.00	1.00	
Gender	Male	90	48	1.00	1.00	
	female	51	41	0.663(0.387, 1.139)	0.99(0.527, 1.862)	0.136
Work experience	<5 years	112	65	1.00		
	>=5 years	29	24	0.701(0.377,1.305)		0.493
Profession	Physician	51	13	3.313(1,676,6.547)	<b>2.40(1.134, 5.068)*</b>	<b>0.001</b>
	Nurse	90	76	1.00	1.00	
Training on medical ethics	No	66	68	1.00	1.00	
	Yes	75	21	3.680(2.038,6.642)	<b>3.96(2.034,7.720)*</b>	<b>&lt; 0.001</b>
Level of satisfaction on work	Satisfied	66	36	1.296(0.757, 2.217)		0.345
	Dissatisfied	75	53	1.00		
Attitude	Unfavorable	54	68	1.00	1.00	
	Favorable	87	21	5.217(2.876,9.464)	<b>4.48(2.277,8.822)*</b>	<b>&lt; 0.001</b>
Practice	Poor	71	60	1.00	1.00	
	Good	70	29	2.040(1.174,3.545)	1.30(0.664, 2.540)	0.011

Note: \* Statistically significant at 5% level of significance multivariable analysis

### 5.5.1.2. Associated factors on attitude of healthcare ethics

In bivariate analysis respondents' age, gender, work experience, profession, level of satisfaction knowledge and practice on healthcare ethics showed association with attitude of healthcare ethics but, in multivariate analysis work experience, level of satisfaction, knowledge and practice on healthcare ethics showed significant association with attitude towards healthcare ethics.

Healthcare professionals who were satisfied on their work had 2.88 times more favorable attitude than those of dissatisfied on their work (AOR=2.88 95% CI=1.532- 5.420).

In addition, healthcare professionals with good knowledge were 4.82 times more likely to have favorable attitude than those who have poor knowledge (AOR=4.82 95% CI: 2.438-9.527).

Healthcare professionals with work experience  $\geq 5$  years were 62% less likely to have favorable attitude about healthcare ethics than  $<5$  years of experience on their work (AOR=0.38, 95%CI=0.166-0.884).

Participants with good practice were about 4.26 times more likely to have favorable attitude than those of poor practice (AOR=4.26 95% CI=2.264-8.003) (table 8).

Table 8: Factors associated with attitude of healthcare ethics among study participants in Addis Ababa, Ethiopia 2019.

Variables	ATTITUDE		COR(95% CI)	AOR(95% CI)	p-value	
	Favorable	Unfavorable				
Age	<24	16	16	2.167(0.659, 7.121)	1.38(0.297,6.454)	0.203
	24-34	86	93	2.004(0.729, 5.505)	1.57(0.415, 5.926)	0.178
	$\geq 34$	6	13	1.00	1.00	
Gender	Male	71	67	1.575(0.924, 2.687)	1.29(0.679, 2.452)	0.095
	Female	37	55	1.00	1.00	
Work experience	<5 years	93	84	1.00	1.00	
	$\geq 5$ years	15	38	0.357(0.183,0.694)	<b>0.38(0.166,0.884)*</b>	<b>0.002</b>
Profession	Physician	39	25	2.193(1.216,3.954)	1.11(0.535, 2.321)	0.009
	Nurse	69	97	1.00	1.00	
Training on medical ethics	No	59	75	1.00		
	Yes	49	47	1.325 (0.783, 2.242)		0.294
Level of satisfaction on work	Satisfied	61	41	2.564(1.502,4.376)	<b>2.88(1.532, 5.420)*</b>	<b>0.001</b>
	Dissatisfied	47	81	1.00	1.00	0.003
Knowledge	Poor	21	68	1.00	1.00	
	Good	87	54	5.217(2.876, 9.464)	<b>4.82(2.438,9.527)*</b>	<b>&lt;0.001</b>
Practice	Poor	41	90	1.00	1.00	
	Good	67	32	4.596(2.625, 8.047)	<b>4.26(2.264,8.003)*</b>	<b>&lt;0.001</b>

Note: \* Statistically significant at 5% level of significance multivariable analysis.

### 5.5.1.3. Associated factors on practice of healthcare ethics

From bivariate analysis of the independent variables gender, profession, work experience, attitude towards healthcare ethics and knowledge on healthcare ethics were significantly associated with practice of healthcare ethics among healthcare professionals at 20% level of significance. However, in multivariable Binary Logistic regression at 5% level of significance. Physicians and Nurses with favorable attitude were about 4.18 times more likely to have good practice of healthcare ethics than those with unfavorable attitude towards healthcare ethics(AOR = 4.18, 95%CI: 2.274-7.675)table 9.

Table 9: Factors associated with practice of healthcare ethics among study participants in Addis Ababa, Ethiopia 2019.

Variables		PRACTICE		COR(95% CI)	AOR(95% CI)	p-value
		Good	Poor			
Age	<24	16	16	1.375(0.438,4.18)		0.585
	24-34	75	104	0.992(0.380,2.584)		0.986
	>=34	8	11	1.00		
Gender	Male	64	74	1.408(0.823,2.411)		0.212
	female	35	57	1.00		
Work experience	<5 years	81	96	1.00	1.00	
	>=5 years	18	35	0.610(0.321,1.157)	0.87 (0.425, 1.766)	0.130
Profession	Physician	32	32	1.478(0.827,2.639)	1.07 (0.557,2.054)	0.187
	Nurse	67	99	1.00	1.00	
Training on medical ethics	No	57	77	1.00		
	Yes	42	54	1.051(0.619,1.783)		0.855
Level of satisfaction on work	Satisfied	48	54	1.342(0.793,2.270)		0.273
	Dissatisfied	51	77	1.00		
Attitude	Unfavorable	32	90	1.00		
	favorable	67	41	4.596(2.625, 8.047)	<b>4.18(2.274,7.675)*</b>	<b>&lt;0.001</b>
knowledge	Poor	29	60	1.00	1.00	
	Good	70	71	2.040(1.174,3.545)	1.20(0.635,2.252)	0.11

Note: \* Statistically significant at 5% level of significance multivariable analysis.

## 6. DISCUSSION

This study assessed knowledge, attitude, practice and associated factors of healthcare ethics among healthcare workers (Physicians and Nurses) working in governmental hospitals in Addis Ababa. Our study shows 61.3% of study participants has good knowledge of medical ethics. This is in line with a cross sectional study conducted among residents in Egypt (69.5%) (27). However, compared with a study Bhairahawa Nepal (45%) was relatively lower (25). This difference may be because of difference in study year (2013), setting and population characteristics (participants were only nurses).

Even though a majority of healthcare professionals were aware of the common ethical issues and patient's rights, they have unsatisfactory levels of knowledge about certain ethical issues. This indicates that healthcare ethics education in medical schools and nursing institution are supposed to strengthened in topics where knowledge levels were low. Encouragingly, 89% of both medical doctors and nurses seemed to express interest in learning healthcare ethics. In this regard our finding is in line with a study from Egypt (99.2%) (27). Almost all (97.8%) of them felt that incorporating ethics as a part of the syllabus in the curricula is necessary and should be taught in every medical school and nursing institution. A study done Nepal 158(90.7%) also confirmed this result (18). This may be similar study design which is cross sectional and health care professionals are motivated to know about medical ethics.

In this study, we have found that study majority of study participants preferred learning instruments for healthcare ethics is books and lectures (24.3%) and journals (13%). In consistent with our findings, previous study in Nepal have showed books (72%) and lectures (70%) as predominant sources of learning ethics (18). In addition, a study in Nepal Kathmandu have shown that learning ethics through seminar presentation (35.7%), work experience (24.5%), training(21.4%) and own reading(17.3%) were main sources of learning healthcare ethics (35). This further implies that apart from teaching health care ethics through lectures, training at workplace and subscription of journals on ethics and books can be highly contributing.

Our study, indicate that the majority of physicians and nurses were agreed with several statements related to healthcare professionals–patient relationships (table 4). In line with finding in our study in Egypt, a cross-sectional study on attitudes towards patient autonomy, among residents showed a lower commitment to patient autonomy (27). The fact that 58% of

respondents in our study feel that the patient's wishes should be adhered to at all times. This is lower compared with the finding from Nepal (72%) and Lahore, Pakistan (68%)(18,31). This difference may be due to study population characteristics and study setting.

According to the study finding, we provide evidence that physicians have better knowledge of healthcare ethics than nurses. This finding is supported by studies conducted in Pakistan Lahore and Nigeria, Bida(29,32). This might be because of different level of exposure for healthcare ethics on their profession.

In this study, having training on healthcare ethics found to be a significant determinant of knowledge of medical ethics. This result is strongly supported by the study done in Egypt on pre and post training on ethical compartment result (30). This may be due to the fact that training on healthcare ethics would assist in bridging this gap to a certain extent.

Based on the finding of this study, healthcare professionals with favorable attitude have good knowledge of medical ethics. This may be due to the fact that healthcare professionals who have favorable attitude towards healthcare ethics could be motivated to know about what is right and what is wrong in the medical practice which makes them to acquire more knowledge about medical ethics.

In our study majority (60%) of participants agreed that patient should always be informed of wrong doing. Which is relatively comparable with study in Nepal (70%) and Coimbatore, India 75% (18,32) but, lesser compared to studies in Egypt 83% and Nigeria 85% (20,27). This difference could be due to in a study conducted in Egypt was among physicians and in Nigeria the participants were also include other professions other than physicians and nurses. This study found that over 74% of the respondents were disagreed on ethics is important only for legal purpose. This indicates that there is very little knowledge regarding health care ethics in these settings. Compared with a study done in Nepal about 85.8% of healthcare providers disagree with this view (18). This similarity might be due to the fact that other than legal purpose healthcare ethics has major benefit on the healthcare system.

Even though, in Ethiopia state jurisdiction has not legalized euthanasia. In this study, majority of doctors(75%) and nurses(68.1%) leaned against physician-assisted dying/euthanasia. This result is in line with a study result from Nepal (physicians 90.7% and nurses 86%) and Barbados

(physicians 85.7% and nurses 91.6%) (18,26). The study results showed that Ethiopian medical doctors and nurses are committed to their professional responsibilities and they could not do what the state jurisdiction does not allow (18,20).

Our result indicated that 53% of study shows participants unfavorable attitude towards healthcare ethics (see table 4). This result is different from study in Addis Ababa 39.4% and Egypt 39.8%. This difference might be because of in those studies study participants were only physicians and different study design in Addis Ababa was cross sectional quantitative triangulated with qualitative (27,35).

Unlike our study, studies done in Nepal, Nigeria, Barbados, Northern India, Lahore, and Pakistan showed that there was a statistically significant difference between different professional qualifications attitude towards healthcare ethics (14,18,20,26,29,31). However, a study done in Rajasthan didn't show no statistical significance (13). The possible reason for this difference may be in the study setting and population characteristics.

According to the current study finding, satisfied healthcare providers on their work has favorable attitude towards medical ethics. This might be due to level of satisfaction could affect the attitudes of individuals towards medical ethics.

In this study, we have found that healthcare professionals with work experience < 5 years have favorable attitude about medical ethics. This might be due to the fact that young healthcare professionals are new for medical practice and usually eager to practice properly what they were thought in medical schools and they were not exhausted on their work. This result is in line with a study conducted in Nigeria, Bida (32).

The result of this study, indicates that healthcare professionals with good knowledge have favorable attitude towards medical ethics. This might be due to the fact that having good knowledge/understanding may be influenced their perception towards medical ethics.

Likewise, healthcare professionals with good practice have favorable attitude. This might be due to the fact that as they practice more their perception would be positively influenced.

Our study shows that, only 99 (43.04%) of healthcare professionals has good practice of medical ethics. This indicates that majority of study participants had poor practice of medical ethics. This finding is in line with studies conducted in Pakistan, Egypt and Nigeria (20,27,29). This might be due to situations in emergency department like overcrowding, poor attitude towards medical ethics, dissatisfaction on work, poor knowledge in the subject matter.

Our study indicates that 202(92.2%) of medical doctors and nurses took healthcare ethics course during medical education. According to a study done in Addis Ababa, the course did not include the country's Health Professionals' Code of Ethics (35). This might lead them not to practice properly. Poor practice of healthcare ethics results in a range of situations such as worsening of the original health condition, failure to treat the original health condition, development of other health complications, unnecessary surgery, increased medical expenses, disability and death. Furthermore, clients/patients might experience psychological distress and unable to trust healthcare providers as well as the health care system after unethical medical practice incident.

In this study we have found that physicians and nurses with favorable attitude have good practice of medical ethics. This result is in line with a study conducted in Addis Ababa (35). This may be due to the fact that attitude determines what individuals do and favorable attitude prevails individuals to act accordingly.

Since healthcare ethics is much more neglected subject in our setting. This study has found gaps in attitude toward healthcare ethics and on practice of medical ethics. In addition, the study also identified factors that affect KAP of healthcare ethics among physicians and nurses working in emergency departments which determine quality of health care service.



## **7. STRENGTH AND LIMITATION**

### **Strength of the study**

- Withstand a lot of challenges (such as: repetitive appointment, plead and disregard as well as difficulty in contacting all organizational hierarchy...etc)
- The data was collected using structured questionnaires adapted and modified from different literatures.
- In an attempt to keep the validity and reliability; a pre- testing was done and data collectors were health professionals.
- The study is multicentered and inter professional.
- This is the first study to determine KAP and associated factors towards healthcare ethics in this country.

### **Limitation of the study**

Participants' practices were self-reported and their responses may have reflected what they believed were appropriate. Limited number of literatures on this topic specially in Ethiopia makes more difficult for comparison of our findings.

## 8. CONCLUSION AND RECOMMENDATIONS

**Conclusion:** Healthcare ethics is one of the much-neglected topics in healthcare in resource poor settings like Ethiopia. This study confirmed that knowledge of healthcare ethics among physicians and nurses working in governmental hospitals in Addis Ababa was found to be good. Study participants had good knowledge of medical ethics. Training and profession were significantly associated with knowledge of medical ethics. Attitude towards healthcare ethics were unfavorable and practice were found to be poor too. Work experience and level of satisfaction on work, knowledge and practice were also significantly associated with attitude towards medical ethics. And attitude was associated with practice of medical ethics.

### Recommendation

Based on the findings of this study, the following recommendations are made for different concerned bodies: -

- **Ministry of health (MOH)**
  - On job training about healthcare ethics should be provided and should continuously focus on the development of good attitudes from which health service is provided.
- **Physicians and Nurses**
  - They should have to give emphasis on practice of healthcare ethics since, physicians and nurses are the pillars of healthcare system.
- **Hospitals**
  - Should consider how the ethical problems that physicians and nurses encounter in their work, may affect their level of stress and their ability to do good for their patients.
  - Adherence of healthcare ethics in clinical practice can enhance ethical comportment skills.
- **Researchers**
  - It is better to conduct observational studies to explore practice of medical ethics, to use large sample of study participants and in different clinical settings which was considered as a limitation of this study.

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## 5. Annexes

### 5.1. Annex 1: - Assurance of Principal Investigator

#### **ASSURANCE OF PRINCIPAL INVESTIGATOR**

The undersigned agrees to accept responsibility for the scientific ethical and technical Conduct of the research project and for provision of required progress reports as Per terms and conditions of the Research Publications Office in effect at the time of Grant is forwarded as the result of this application.

Name of the student:

Date. \_\_\_\_\_

Signature \_\_\_\_\_

#### **Approval of the primary Advisor**

Name of the primary advisor:

Date. \_\_\_\_\_

Signature \_\_\_\_\_

## 5.2. Annex – 2: Information Sheet and Consent Form

### **Participant information sheet and informed consent form for study units**

My name is Betelhem Addisu and I am Emergency medicine and critical care nursing master's student in Addis Ababa University. I take this opportunity to invite you to participate in this study entitled to assess KAP and associated factors towards healthcare ethics among physicians and nurses working in emergency departments of governmental hospitals in Addis Ababa, Ethiopia. I kindly request you to express your understanding freely about healthcare ethics freely.

**The study title:** assessment of Knowledge, attitude, practice and associated factors towards healthcare ethics among physicians and nurses working in emergency departments in governmental Hospitals in Addis Ababa, Ethiopia

**Purpose of the study:** the main aim of this study is to assess knowledge, attitude, practice and associated factors towards healthcare ethics among physicians and nurses working in emergency departments in four selected governmental hospitals in Addis Ababa, Ethiopia 2019.

**Procedure and duration:** The data collectors will collect the necessary information from participants using structured data extraction tools to have pertinent data that is helpful for the study. The duration of data collection will be for one month.

**Risk and discomfort:** By participating in this research project, there is no risk that comes to the participants. Whereas expressing full concern and understanding is of great important to the research project which is in turn important for overall implementation of program.

**Benefit:** The research has no direct benefit to those who have participated in this project. But the indirect benefit of the research for the participant and overall as a country is very great, as identifying gap, recommend area of improvement and taking appropriate decision helps to improve a quality healthcare service.

**Confidentiality:** The information acquired from the participant will be confidential. There will be no information that will identify in particular. The findings of the study will be general for the study community and will not reflect anything particularly of individual persons.

The data extraction tools will be coded to exclude showing names and other personal information's. No reference will be made in oral or written reports that could link participants to the study.

**Rights to refusal or Withdrawal:** Giving permission for this study is fully voluntary. You have the right to permit or not for this study. If you decide to permit the study, you have the right to terminate the study at any time if you consider something related to the study is wrong.

**Contact address:** This research project will be reviewed and approved by the institutional review board of College of Health Science, School of medicine, Ababa University. If at any case you want to know more information about the research and its undertakings, you can contact the committee through the address of advisor and /or principal investigator.

**Principal investigator:** Betelhem Addisu(BSc), AAU College of Health Science College  
Mobile phone: +251-938064185 email: betelhemaddisu000@gmail.com

Advisor Tel: \_\_\_\_\_ e-mail: \_\_\_\_\_



### 5.3. Annex-3: Declaration of informed voluntary consent:

I have read/was read the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the right of participation and the contact address for any queries. I have been given the opportunity to ask any questions for things that may have been unclear. I was informed that I can terminate the study at any time. Therefore, I declare my voluntary consent to permit this study to be conducted in this institution with my signature as indicated below.

Signature of the participant \_\_\_\_\_

Date \_\_\_\_\_

Signature of Principal Investigator \_\_\_\_\_

Name: \_\_\_\_\_ Date \_\_\_\_\_

**Thank you for your cooperation!!**

#### 5.4. Annex - 4 data extraction tool

##### PART I: -Socio-demographic characteristics of physicians and nurses

Code	Socio-demographic characteristics	Response
101	Age in years	.....
102	Sex	1. Male 2. Female
103	Your professional qualification	
	1. physician	a. General practitioner(GP) b. Resident (R1, R2, R3, R4) c. Consultant
	2. Nurse	a. Diploma b. BSc c. MSc d. Other (specify)
104	Year of work experience	.....years/months
105	Average monthly income	..... (in Ethiopian Birr)
106	Have you taken ethics course during your medical education?	1. yes 2. No
107	Have you taken training on medical ethics /healthcare ethics after school?	1. yes 2. No
108	What is your preference instrument for learning medical ethics? UG = Undergraduate lectures CME = Continuing Medical Education lectures	A. Ethics journals B. Books on ethics C. General texts D. Media(Newspapers/internet /TV) E. Workshops F. Lectures (UG/CME) G. Panel discussions H. Case conferences I. Others (specify).....
109	What is your level of satisfaction with your work?	a. Very satisfied b. Satisfied c. Not sure d. Dissatisfied e. Very dissatisfied
110	Do you know the existence of Federal Health Professionals Ethics Committee?	1. Yes 2. No
111	If your answer for question number 110 is “Yes”, do you know the powers and duties of the Federal Health Professionals Ethics Committee?	1. Yes 2. No

**PART II: - Questions on knowledge of medical ethics**

Code	Knowledge on healthcare ethics	Response
201	Healthcare ethics/medical ethics is an essential subject for physicians or nurses	a. Yes b. No
202	Disclosure of medical reports a good idea?	a. Yes b. No
203	Can rapport be established between a physician or nurses and the patient in medical practice?	a. Yes b. No
204	Does patients have the right to a second medical opinion?	a. Yes b. No
205	Medical treatment should rely heavily on drugs?	a. Yes b. No
206	Which one of the following best defines ethics?	a. Moral principles/rules to be followed b. Code of conduct c. Not affecting others' freedom d. Service to patients/to be sympathetic e. Others (specify)..... f. No answer
207	Which one of the following best defines medical ethics/health care ethics?	a. Ethics to be followed by healthcare professionals b. Managing healthcare problems c. Moral values to be followed for the welfare of patients d. Treating patients with kindness e. Maintaining confidentiality f. Awareness for good health g. Other (specify) h. No answer

208	Of the following which defines the basic ethical principles?(more than one answer is possible)	<ul style="list-style-type: none"><li>a. Respecting patients' views</li><li>b. Not to harm in any way</li><li>c. Treating the patients kindly/properly</li><li>d. Truthfulness/sincerity/empathy/with better understanding</li><li>e. Treating to patients' satisfaction</li><li>f. Investigations and treatment after obtaining consent</li><li>g. Others (specify)</li><li>h. No answer</li></ul>
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Please mark (√) on the appropriate answer in the questionnaire below.

**PART III: - Questions on Attitude of healthcare ethics among physicians and nurses**

Code	Attitude on healthcare ethics	Strongly agree	agree	Not sure	disagree	Strongly disagree
301	Ethical conduct is important only to avoid legal action					
302	Do you have an interest in learning medical ethics/health care ethics?					
303	Dose patient's wishes must always be adhered?					
304	Physician and or nurses should do what is best irrespective of patient's opinion					
305	Do you think patient should always be told if something is wrong					
306	If there is disagreement between patients/families and health care professionals about treatment decisions, doctor's decision should be final					
307	If a Patient refuse treatment due to beliefs should be instructed to find another doctor					
308	Do you think patients need to consent only for operations but not for tests or medications					
309	Children should never be treated without the consent of their parents or guardians (except in an emergency)					
310	Confidential information can only be disclosed if the patient gives explicit consent or if expressly provided for in the law					
311	Hospital staff can use patient picture in public forum without the patient consent					
312	Close relatives should always be told about a patient's condition					
313	Doctors and or nurses should refuse to treat patients who behave violently					
314	In your opinion do you think that healthcare professionals are influenced by drug company inducements, including gifts?					
315	Health care worker can't refuse to do an abortion if the law allows it to be performed					
316	Patient who wishes to die should be assisted in doing so					

**PART IV: - Questions on practice of healthcare ethics among physicians and nurses**

code	Practical questions on healthcare ethics	Strongly agree	agree	Not sure	disagree	Strongly disagree
401	During my medical practice I adhered with the patients wish					
402	I take informed consent from patient (before history-taking, physical examination or exposing any body part)					
403	During examination or procedure, I ensured nobody present other than medical team					
403	I do what is best for the patient irrespective of their opinion					
404	I tell the patient if something is wrong during the procedure or treatment					
405	If there is disagreement between patients/families and health care professionals about treatment decisions health professional's decision should be final					
406	If a Patient refuse treatment due to beliefs I instruct the patient to find another doctor					
407	I took consent from the patients only for operations but not for tests or medications					
408	I do not treat Children without the consent of their parents or guardians (except in an emergency)					
409	I use patient picture in public forum without the patient consent					
410	I told Close relatives about a patient's condition					
411	I only disclose patient's confidential information if they give explicit consent or if expressly provided for in the law					
412	I refuse to treat or deal with patients who behave violently					
413	I cannot refuse to do abortion if law allows it to be performed					
414	If a Patient wishes to die, I assure or help him/her in doing so no matter what their illness.					
415	I prescribe medication or investigations that was not indicated (e.g. only for research)					
416	Drug companies influence Healthcare professionals by inducements, including gifts					

***THANK YOU FOR YOUR COOPERATION!!!***

### 5.5. Annex-5: Declaration

I, the undersigned, EMCCN student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of EMCCN.

Name: BETELHEM ADDISU

Signature: \_\_\_\_\_

Place of submission: AAU College of Health Sciences, School of Medicine, Addis Ababa University.

Date of Submission: \_\_\_\_\_

This thesis work has been submitted for examination with my/ our approval as university advisor(s).

Advisors

Name and Signature

1. Dr. TIGIST.B (MD, MPH, ASSOCIATE PROFESSOR OF PEDIATRICS)

\_\_\_\_\_

2. ACHAMYELESH. T (MSC IN EMCCN, LECTUROR) \_\_\_\_\_