PATIENT SAFETY CULTURE AND ASSOCIATED FACTORS AMONG HEALTH CARE WORKERS IN GAMO GOFA ZONE PUBLIC HOSPITALS, SOUTHERN ETHIOPIA

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A RESEARCH THESIS SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY IN PARTIAL FULFILLMENT FOR THE REQUIREMENT ON MASTERS OF SCIENCE IN ADULT HEALTH NURSING.

JUNE, 2018

JIMMA, ETHIOPIA

JIMMA UNIVERSITY

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JUNE, 2018

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ABSTRACT

Background*: In health care, the safety of patient is persistency hampered due to unsafe care or medical errors exposing to extra human and healthcare expenses. Improving and promoting patient safety culture in healthcare industry contributes to quality of patient care.*

Objective*: The aim of this study is to assess patient safety culture and associated factors among health care workers in Gamo- Gofa zone public hospitals, Southern Ethiopia, 2018*

Methods*: Institution based cross-sectional quantitative study was conducted from March 19 to April 20 in three public hospitals in Gamo-Goffa zone. A total of 440 participants were selected by using simple random sampling. Self-administered data collection method was employed. The data was entered into epidemiological data version 3.1 and analyzed by using statistical package for social science version 23.0. Background characteristics was regressed on the overall perception of patient safety to determine score difference. Independent factors associated with overall perception of patient safety was determined using multiple linear regression analysis.*

Results*; Among 440 health care workers, 401 completed the study with a response rate of 91.14%. From the respondents 217 (54.1%) were males and the mean age was 32.98 (± 8.55) years. Percent positive response for "staffing was 30.9%, non-punitive response to errors was 30.2%, communication openness was 43.1%, feedback and communication about error was 35.7%, frequency of events reported was 22.7% and handoffs and transitions was 29.4%". In this study, 61.8% were never reported at least one event in the last 12 months. Respondents with different background characteristics were significantly influence the score of respondents on the patient safety culture. Communication openness (β =0.62, CI=0.543,0.69), feedback and communication about error (β =0.213, CI=0.140,0.286) and supervisor/manager expectations and actions promoting patient safety (β =0.131, CI=0.027,0.234) were the most predictive dimensions for the patient safety culture as measured by overall perception of patient safety.*

Conclusion and recommendation; *There was a low status of patient safety culture among health care workers in Gamo- Gofa zone public hospitals. So, institutions have to improve a positive patient safety culture by considering and intervening on the prioritized factors that we had shown as important in this study.*

Key words*: Patient safety, Patient Safety Culture, Gamo-Gofa zone, Ethiopia*

ACKNOWLEDGEMENT

Firstly, I would like to thank Jimma University Institute of Health for giving me an opportunity to conduct and financing this research project. Then, I express my sincere thanks to my first advisor Mr. Fikadu Balcha and second advisor Mr. Sheka Shemsi, who helped me from the very beginning to the completion of this thesis work.

I would like to forward my deepest gratitude to the respondents, data collectors, supervisors, Gamo- Gofa zone health bureau and hospital administrators for their valuable participation without their participation, this thesis would not have been accomplished.

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LIST OF ACRONYMS

AHRQ	Agency for Health Care Research and Quality
CI	Confidence Interval
EpiData	Epidemiological Data
FMOH	Federal Ministry of Health
HCPs	Health Care Providers
HMIS	Health Management Information System
HSOPSC	Hospital Survey on Patient Safety Culture
IHI	Institute for Health Care Improvement
IOM	Institute of Medicine
PSC	Patient Safety Culture
SD	Standard Deviation
SNNPR	South Nations Nationality Peoples Region
SPSS	Statistical Software Package for Social Science
TJC	The Joint Commission
USA	United States of America
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1. Background

Despite its advancement in using complex technologies or modern therapies and treating different patients, preventable undesirable outcomes or medical errors occur in health care systems. Those problems are preventable through improving the all aspects of patient safety (1,2).

World Health organization defines Patient safety as *"absence of preventable harm to a patient during the process of health care"*(3). It was appreciated throughout the history of health industry with Hippocratic Oath and Florence Nightingale note (4,5). However, for centuries unsafe care or medical error was insidiously practiced across the nation until the Institute of Medicine (IOM) exposed the lack of safety for patients in healthcare organizations (1).

Following the publication of various reports, healthcare industry is facing extreme pressure to improve patient safety and quality of care (6,7). Promoting or creating a culture of safety in an institution is among the strategies that help to improve patient safety within healthcare organizations sustainably. The IOM report also suggest institutions to move toward a safer health system by changing their patient safety culture from the one which blame individuals to errors to the one that errors treated as opportunities (1,8).

Patient safety culture is the specific form of general organizational culture which focuses on a narrowly defined aspect of performance, namely patient safety. It is the pattern of assumptions shared among members of a group specifically related to patient safety (9). The term was defined in many ways but for the purpose of this study the Agency for health care research and quality (AHRQ) definition is used; *"The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management"* (10).

According to the AHRQ, developing a patient's safety culture requires an understanding of the current patient safety culture in an organization. Based on this institution conduct safety culture surveys to assess their current culture to create a safer environment.

1.2. Statement of the problem

Injuries and death secondary to adverse events from unsafe or poor quality of health care present significant challenges to health system across the globe and affect an inadmissible number of patients every year (7,11).

According to the WHO 2017 report, around 1 in 10 patients encounter harm and 42.7 million adverse events occur on hospitalized patients due to unsafe care. Those problems can lead to increased length of stay in hospitals, healthcare-associated infections, disability and morbidity however, half of them are preventable. Medical errors are not only affect human lives but also greatly contribute to soaring medical costs (7).

In the Eastern Mediterranean and African study, almost one third of patients who suffered a harmful incident died. Another 14% sustained permanent disability, 16% sustained moderate disability, 30% were left with minimal disability and 8% of the patients' harm could not be specified (12). In Ethiopia understanding of the problems associated with patient safety is hampered by inadequate data. Despite that, patient safety is believed to be a serious concern in the country. A previous study in pediatric ward in showed an incidence of 9.2 adverse events per 100 admissions, of which one-third were preventable (13). Another study done in the Black Lion specialized hospital of the country found 40.7 % of the rate of prescribing errors (15). Different types of medical errors including obstetric trauma and injury, hospital acquired infections, postoperative sepsis, complication of anesthesia and transfusion, and failure to rescue were perceived to be common problems in Jimma university medical center (14).

The most common adverse events on the world are related to surgical procedures, medication errors and health care-associated infections (7,16). Those problems occur on the health care due to the complexity of care, environmental factors, communication failures, and failure in interactions of humans with technology. Among them the cultural and nontechnical system failures such as breakdowns in communication are the major ones (17).

Overall, a punitive culture led to perceptions of shame and fear and underreporting of near misses and adverse events, impeding the organization from implementing preventive measures (18). To enhance patient safety culture in health care setting organizational restriction and system improvement have been suggested (19–21).

Studies have shown that there is a relation between patient safety culture and safe care practices like error/risk reporting behavior and medication reconciliation errors. It has also a relation

with patient outcomes include reduced mortality rate, infections, surgical errors, reduced adverse error incidences and accident prevention. In all stronger patient safety culture is positively associated with patient safety performance, better quality and efficiency. In addition, it is also associated to improved patient satisfaction (22–24). Patient safety culture also influences the health care providers' behavior, attitude, and cognitions on the job by providing cues about the relative priority of patient safety compared with other goals and also shapes their perceptions about "normal" behavior related to patient safety in their work area (25).

Several studies have found relationships between safety culture and the AHRQ Patient Safety Indicators. In one study that utilized a composite of 12 AHRQ patient safety indicators results suggested that a 1 standard deviation increase in patient safety culture scores was associated with a 10% decrease in the composite patient safety incident risk. Other work has indicated that culture can account for up to 6% of the variance in adverse events and 18% of the variance in patient willingness to recommend a hospital to family and friends (26–28).

High burden of medical errors and unsafe care in low income countries, like Ethiopia, with limited research findings indicate need for further studies in the area of patient safety culture. In addition, to our knowledge there was no study conducted previously in the study area to assess the status of patient safety culture. Therefore, it is necessary to explore and examine the patient safety culture of health facilities in Goma-Gofa zone.

1.3. Significance of the study

The aim of this study is to assess patient safety culture among health care workers in Gamo Gofa zone public hospitals. The findings of this study will be beneficial to respective hospitals, healthcare workers, managers, health policy makers, and future researchers.

It helps hospitals to diagnose and assess the status of patient safety culture that helps to appreciate their current status and conduct benchmarking (internal and external comparisons); to determine the type of culture existing in their organizations; helps to identify areas that needs improvement and intervene on them to enhance the patient safety; used as evaluation method to assess the success and cultural impact of previous patient safety interventions and helps hospitals to plan for future quality and patient safety improvements in their institutions.

Helps managers to understand the attitude of professionals towards their activities and their impact on the hospital safety culture. To identify their strengths and weakness and to take actions in order to improve their role in the hospital.

Helps professionals to appreciate their collective culture in the institution, identify areas that needs improvement and intervene together to enhance the patient safety.

Researchers and policy makers can use it as a baseline and supportive data with other studies to design policies, strategies, guidelines and protocols in order to improve patient safety and quality of care.

CHAPTER TWO: LITRATURE REVIEW

Interest in safety culture measurement in healthcare organizations has grown in parallel with the increasing focus on improving patient safety. Based on this frameworks, surveys and assessment tools have been developed over the past decade to help organizations measure and understand what type of culture exists in the organization and also to identify areas of strength and gaps, so that factors that might improve or hinder improvement efforts can be identified. Several measures of patient safety culture and the various elements of patient safety culture have been developed. One of the widely used and validated tools for measuring patient safety culture is the Hospital Survey on Patient Safety Culture (HSPSC) which was developed by the Agency for Healthcare Research and Quality (AHRQ).

2.1 Studies on Patient Safety Culture

A cross-sectional study was conducted by using the hospital survey on patient safety culture (HOSPS) questionnaire to examine similarities and differences in hospital patient safety culture in three countries: The Netherlands, the USA and Taiwan. The study was conducted in 45 hospitals in the Netherlands, 622 in the USA and 74 in Taiwan with a total of 3779 professionals from the participating hospitals. Based on the result, most hospitals in all three countries have high scores on teamwork within units. The average positive score for the hospitals were 65% for USA, 52.2% for Netherlands and 64% for Taiwan. Differences between Netherlands, Taiwan and USA exist on the following dimensions respectively: non-punitive response to error (66%, 31%, 44%), feedback and communication about error (52%, 44%, 63%), communication openness (68%, 40%, 62%), management support for patient safety (31%, 60%, 70%), Supervisor/manager expectations and actions promoting patient safety (63 %, 65 %, 75 %) and organizational learning—continuous improvement (47%, 80%, 71%). On average, the majority of respondents within US hospitals (73%) gave their work area or unit a grade on patient safety of either ‘Excellent’ or ‘Very good’ whereas in the Netherlands (24 %) and Taiwan (43%). On the whole, USA respondents were more positive about the safety culture in their hospitals than Dutch and Taiwanese respondents. Nevertheless, there are even larger differences between hospitals within a country (29).

Another study was conducted to compare managers’ and health care staff’s perceptions of patient safety culture and to explore factors potentially influencing patient safety culture in hospital settings by using the Swedish version of the HSOPSC. Results from the study show that managers perceive patient safety culture to be stronger than non-managerial health care

staff do and registered nurses and physicians had different views of patient safety culture. Patient safety culture also differs with regard to sex, age and total work experience (30).

A study done in ten intensive care units in six hospitals of Norway to explore potential predictors for overall perception of safety and frequency of incident reporting. A cross-sectional design was conducted, using the questionnaire HOSPSC, measuring 12 patient safety climate dimensions: seven at unit and three at hospital level, two outcomes and in addition two outcome items. Significant differences on perceptions of patient safety were found between types of units and between the four hospitals. The total variance in the outcome measure explained by the model as a whole was for the outcome dimensions ‘‘overall perception of safety’’ 32%, and ‘‘frequency of incident reporting’’ 32%. The variables at the unit level made a significant contribution to the outcome (31).

In Brazil one study found a possible relation between the assessment of the safety culture and the subjects’ professional characteristics at the Neonatal Intensive Care Units. A study was conducted in order to verify the assessment of the patient safety culture according to the function and length of experience of the nursing and medical teams. A significant association was found between a length of work at the hospital and length of work at the unit and a number of positive answers (32).

A translated version of Hospital Survey of Patient Safety Culture (HSOPC) tool was adopted to investigate the patient safety culture in 16 cities of China and explore the status of the safety culture from the perspective of health workers. On the study positive response rate for each dimension was ranged from 36% to 89% and the average positive score for all dimensions were 65%. There was a statistical difference on the perception of patient safety culture in groups of different work units, positions and qualification levels (33).

A study aimed to evaluate patient safety culture among the clinical staff of a hospital in Jakarta, Indonesia and identify organizational culture profile was conducted in 2014 by using cross-sectional qualitative study. Sample population consisted of nurses, midwives, physicians, pediatricians, obstetrics and gynecology specialists, laboratory personnel, and pharmacy staff (n=152). The result shows teamwork within units” was the strongest dimension of patient safety culture (91.7%), while “staffing” and “non-punitive response to error” were the weakest dimensions (22.7%) (34).

In Srilanka cross-sectional descriptive study was carried out to assess the current patient safety culture in a tertiary care hospital. In this study a self-administered questionnaire with eleven dimensions of patient safety culture was conducted on 389 respondents including administrators, consultants, and postgraduate trainees, medical officers, house officers and nursing officers. The average score for dimensions were 62.7% which showed there is a positive response towards patient safety culture within the organization. Correlation between the overall patient safety and other variables are found to be significant and prevailing patient safety culture seems to be in a reactive stage but, with strong blame culture (35).

A study aimed to evaluate the attitude of healthcare providers toward PSC in the hospitals and clinics was conducted in Zabol city, Iran by using descriptive cross-sectional study. Participants were a total 231 healthcare practitioners including physicians, nurses, and para-clinical staff engaged in different healthcare centers. On the result participants were divided into three groups of physicians, nurses, and para-clinical staff (n=77, 33.33%). Among the main aspects of PSC, "general understanding of patient safety" had the highest mean score (13.53), and the lowest mean score was achieved in "non-punitive response to error" (8.89). In the aspect of "manager expectations and actions promoting safety", a significant difference was observed in the mean scores of the study groups (P=0.030). Moreover, the results showed a significant difference between the mean scores of physicians and nurses in the aspect of "openness and honesty in communication" (P=0.023) (36).

The cross sectional study with adopted version of the HSOPSC was applied in hospital of Riyadh, Saudi Arabia to explore the association between patient safety culture predictors and outcomes, considering respondent characteristics and facility size. Percent positive scores for dimensions were; 63.3% for feedback and communications about error, 70.4% for hospital management support for patient safety, 60.6% for supervisor/manager expectations and actions promoting patient safety, non-punitive response to error 26.8%, staffing 35.1%, and communication openness 42.9%. On patient safety grade, 69.6 % of respondents' rate as either 'Excellent or very good' and about half 52.7% were never reported an event in last 12 months. Regression analysis showed associations between higher patient safety score and greater age (46 years and above), longer work experience, having a baccalaureate degree, and being a physician or other health professional (37).

A study was done in Jordanian Ministry of Health (MoH) hospitals to measure health care staff perception on the safety culture by a cross sectional study design using multistage stratified

random sampling technique. A total of 287 respondents completed and returned the survey, which makes a response rate of nearly 60%. The highest participant positive response came from 'teamwork within units' 68%, whereas overall perception of patient safety, feedback and communication about error and communication openness was only 42%, 40% and 35% respectively (38).

In two hospitals of Gaza a research on patient safety culture was conducted by using a cross-sectional, descriptive design with a total number of 376 clinical and non-clinical hospitals' staff participated in the study. Finding shows, the overall score for all dimensions were 64%; the dimensions which elicited the highest positive ratings were teamwork within units (78%), and organizational learning and continuous improvement (72%); meanwhile those with the lowest ratings included staffing (58%), and non-punitive response to error (48%). About 63.8% of respondents rate their patient safety grade as 'excellent' and 'very good' and 42.5% of respondents never reported event in the last 12 months. Statistically significant differences among hospitals and also in reference to participants working characteristics ($p<0.05$) (39).

In Oman study was carried out to illustrate the patient safety culture by 12 dimensions of patient safety culture derived from the hospital survey on patient safety culture. A cross-sectional research study employed to gauge the performance of HSPSC dimensions among health workers in the northern region of Oman. The participants (n=398) represented different professional designations of hospital staff. The overall average positive response rate for the 12 patient safety culture dimensions of the HSPSC was 58%. The indices from HSPSC that were endorsed the highest included 'organizational learning and continuous improvement' while conversely, 'non-punitive response to errors' was ranked the least (40).

A cross-sectional descriptive study was conducted among health professionals at university hospital of Tunisia by using hospital survey on patient safety culture tool among all licensed physicians (n= 116) and a representative sample of paramedical staff (n= 203) exercising at university hospital. Overall score of different dimensions varies between 32.7% and 68.8%. Dimension having most developed score (68.8%) was perception of "frequency and reporting adverse events" and lowest score (32.7%) was "management support for safety care" (41).

At Ain shams university hospital in Cairo a study conducted on patient safety culture by using an Arabic version of the agency of healthcare research and quality hospital survey for patient safety culture by using a descriptive cross-sectional study. Which assessed healthcare providers' perceptions of patient safety culture within the organization and determined factors

that played a role in patient safety culture. The highest mean composite positive score among the 12 dimensions was for the organizational learning for continuous improvement (78.2%), followed by teamwork (58.1%). The lowest mean score was for the dimension of non-punitive response to error (19.5%) (42).

A study to assess the views and perceptions of health care professionals about patient safety culture was conducted in public hospitals of Ethiopia. A cross-sectional study, utilizing the 'hospital survey on patient safety culture' questionnaire was carried out in 2016 in the Amhara region. A self-administered questionnaire was distributed to the 480 health care staffs, including physicians, nurses, pharmacists, and other clinical and non-clinical staffs. Results shows that the overall score for the dimensions were 46%. The positive response rate of two dimensions ('teamwork within units' and 'organizational learning–continuous improvement') received the highest score (each 72%), and the lowest score was attributed to 'staffing' (26%), non-punitive response to error 33%, communication openness 42% and frequency of events reported 36%. Approximately, two thirds of staffs reported at least one event in the past 1 year. Nurses reported better in the overall patient safety score compared with other health care professionals ($p = 0.03$). They stated that there is a severe deficit of patient safety culture in Ethiopian public hospitals. Further research is needed to confirm the applicability of the translated version of the HSOPSC in the Ethiopian hospital settings (43).

A study conducted in Jimma zone hospitals in southwest Ethiopia to assess the level of patient safety culture and associated factors by using facility based cross sectional quantitative study triangulated with qualitative approaches. They used stratified sampling technique to select 637 study participants among 4 hospitals. The overall level of patient safety culture was 46.7 %. The score for dimensions were 35.25% for staffing, 27 % for frequency of event reporting, non-punitive response to error 23.7 % and 33 % for feedback and communication about error. Hours worked per week, reporting adverse event, good communication, teamwork within hospital, level of staffing, exchange of feedback about error and participation in patient safety program were factors significantly associated with the patient safety culture (44).

2.2 Theoretical Framework

The HSOPS instrument has 42 questionnaire items grouped into twelve composite measures. These twelve composites include seven dimensions of unit-level patient safety culture, three dimensions of hospital-level safety culture, and two outcome measures (overall perception of patient safety and frequency of event reported). An organization's culture of safety had a great impact on employee perception on the overall safety of their setting and their behavior in reporting incidents or near misses in which an organizational with low safety culture diminish their feelings on patient safety and often results in medical error underreporting. Therefore, whether the overall perception of patient safety and error reporting pattern or both can be used as an indicator of whether the organization promotes safety culture or not (18,23).

According to the design; Team Strategies and Tools to Enhance Performance and Patient Safety, (TeamSTEPPS) which is an evidence-based framework developed by the Agency of Healthcare Research and Quality (AHRQ) as the intervention for organizational transformation to a culture of safety; building a culture of safety in healthcare has three phases (1) assessment phase (2) planning, training and implementation phase and (3) sustainment phase. On the assessment phase; the activities are determining the current status of patient safety culture and identifying the prioritized target area of intervention which can be determined by identifying the positive predictors for the indicators (outcome dimensions) (45,46).

Therefore, based on these theories this study was done by considering overall perception of patient safety as a measure of patient safety culture.

CHAPTER THREE: OBJECTIVES

3.1 General Objective

- To assess patient safety culture and associated factors among health care workers in Gamo- Gofa zone public hospitals, Southern Ethiopia, 2018

3.2 Specific Objectives

- To determine status of patient safety culture among health care workers in Gamo- Gofa zone public hospitals, Southern Ethiopia, 2018
- To identify factors associated with the patient safety culture as measured by overall perception of patient safety in Gamo- Gofa zone public hospitals, Southern Ethiopia, 2018

CHAPTER FOUR: METHODS AND MATERIALS

4.1 Study area and period

The study was conducted in Gamo Gofa zonal hospitals from March 19 to April 20. The study area is one of the Zones of Southern Nation Nationality and People Regional (SNNPR) state of Ethiopia. Arba Minch town located 505 km away from Addis Ababa and 275 km south west of Hawassa, capital city of the region. The study area has a total population of 2,019,687 and covers 12,003.79 square kilometers. In the study area there are three zonal hospitals, 73 health centers, and 471 health posts. The total number health professionals was 1535 (47).

4.2 Study Design

Institutional based cross-sectional quantitative study design was employed in Gamo Gofa zonal public hospitals

4.3 Population

4.3.1 Source population

All health care providers and administrative staffs who were working in Gamo Gofa zone public hospitals.

4.3.2 Study population

Selected health care providers and administrative staffs from the three public hospitals in Gamo-Goffa zone.

4.3.3 Eligibility criteria

4.3.3.1 Inclusion criteria

- Those health care providers who were fulltime workers
- Staff members who had worked in the current hospital for at least 6 months.

4.3.3.2 Exclusion criteria

- Those health care providers who were on annual leave at the time of the study
- Staff who appeared in more than one staffing category or hospital area/unit

4.4 Sample size determination and Sampling technique

The sample size required was determined based on single population proportion formula with the assumption of 5% marginal error(d), 95% confidence level (z), estimated proportion of the overall level of patient safety culture is 47% (p) which was taken from the study done in Jimma Zone hospitals (44).

$$\mathbf{n} = \frac{(\boldsymbol{Za}/\mathbf{2})^{\mathbf{2}} \times \boldsymbol{P}(\mathbf{1}-\boldsymbol{P})}{\boldsymbol{d}^{\mathbf{2}}} = \frac{(\mathbf{1.96})^{\mathbf{2}} \times \mathbf{0.47}(\mathbf{1}-\mathbf{0.47})}{\mathbf{0.05}^{\mathbf{2}}}$$

Where;

- n= required sample size
- Z= critical value for normal distribution at 95% confidence level which equals to 1.96 (Z value at α=0.05, two tailed)
- p = Expected proportion of overall level of patient safety culture
- d= desired precision with 5% marginal error

Based on the above formula it gave a minimum sample size of 383 and with adding 15% non-response rate the final sample size was 440.

4.5 Sampling procedures

All health care workers in Gamo Gofa zone public hospital was selected for this study as a source population. Based on the sample size proportional allocation of the respondents for each hospital was done. Then respondents were selected by using simple random sampling technique in each hospital by using the list of the professionals from the human resource management as a sampling frame.

The following diagram shows the sampling procedure

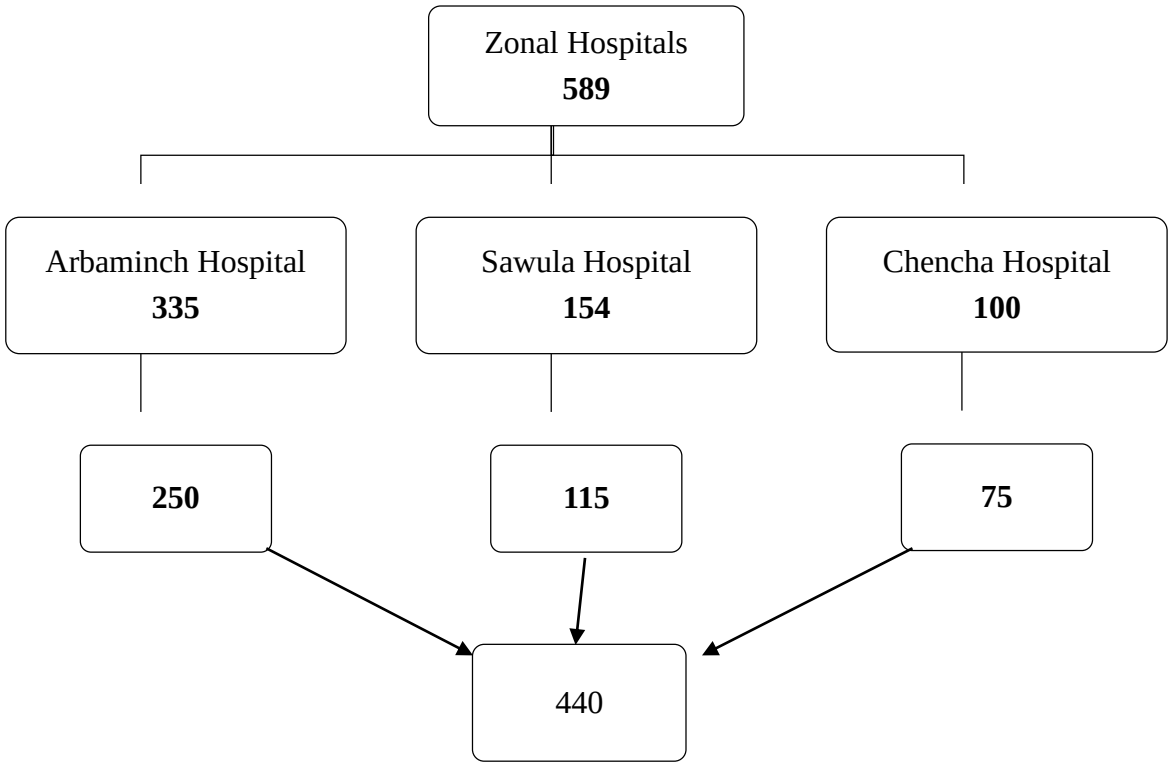

Figure 1 Schematic presentation of sampling procedure to assess the status of patient safety culture among health care workers in Gamo- Gofa zonal hospitals, southern Ethiopia, 2018

4.6 Study variables

Dependent variable

Patient safety culture (as measured by overall perception of patient safety)

Independent variables

Background characteristics of the participants

- Age
- Sex
- Work unit/ward in hospital
- Experience in the hospital
- Experience in the hospital unit
- Staff Position in the hospital
- Experience with the profession

- Work hour/week
- Contact with the patient

Patient safety culture dimensions

- Work area/unit related dimensions
  - Teamwork within units
  - Staffing
  - Organizational Learning—Continuous Improvement
  - Non-punitive response to errors
- Supervisor/ manager expectations
- Communication
  - Communication openness
  - Feedback and communication for errors
- Frequency of event reporting
- Hospital related dimensions
  - Management support
  - Teamwork Across Units
  - Hospital handoffs & transition

4.7 Definition of terms and Operational definitions

- **Patient safety culture dimension or composite-** A group of survey items that measure the same patient safety culture area.
- **Percentage of positive response-** is the proportion of the participants with dimensional score of ≥75 from the total participants.
- **Communication Openness**- Staff freely speak up if they see something that may negatively affect a patient and feel free to question those with more authority.

- **Feedback and Communication About Error**- Staff are informed about errors that happen, are given feedback about changes implemented, and discuss ways to prevent errors.
- **Frequency of Events Reported**- Mistakes of the following types are reported: (1) mistakes caught and corrected before affecting the patient, (2) mistakes with no potential to harm the patient, and (3) mistakes that could harm the patient but do not.
- **Handoffs and Transitions**- Important patient care information is transferred across hospital units and during shift changes.
- **Management Support for Patient Safety**- Hospital management provides a work climate that promotes patient safety and shows that patient safety is a top priority.
- **Non punitive Response to Error**- Staff feel that their mistakes and event reports are not held against them and that mistakes are not kept in their personnel file.
- **Organizational Learning—Continuous Improvement-** Mistakes have led to positive changes and changes are evaluated for effectiveness.
- **Overall Perceptions of Patient Safety-** Procedures and systems are good at preventing errors and there is a lack of patient safety problems.
- **Staffing-** There are enough staff to handle the workload and work hours are appropriate to provide the best care for patients.
- **Supervisor/Manager Expectations and Actions Promoting Patient Safety-** Supervisors/managers consider staff suggestions for improving patient safety, praise staff for following patient safety procedures, and do not overlook patient safety problems.
- **Teamwork Across Units-** Hospital units cooperate and coordinate with one another to provide the best care for patients.
- **Teamwork Within Units**- Staff support each other, treat each other with respect, and work together as a team.

Measurements

Status of patient safety culture- measured by the healthcare workers' percentages of the positive responses for the each of the 12 patient safety culture dimensions.

- Scores of 75 % and above considered as good patient safety culture/area of strength.
- Scores between 50-75% were considered as medium patient safety culture area.
- Scores of less than 50 % and less considered as poor/low patient safety culture/need improvement.

4.8. Data collection procedures

4.8.1 Data collection tool

The questionnaire was adapted from the Agency for Healthcare Research and Quality's hospital survey on patient safety culture then it was translated to Amharic language (48). It was designed to assess hospital staff opinions about patient safety issues, medical error and event reporting and measures 12 dimensions of patient safety culture. The dimensions measured are: communication openness, feedback and communication about error, frequency of event reported, hand-offs and transitions, management support for patient safety, non-punitive response to error, organizational learning/continuous improvement, overall perceptions of patient safety, staffing, supervisor/manager expectations and actions promoting safety and teamwork across and within units. Among them "overall perceptions of patient safety" and "frequency of events reported" are considered as the outcome dimensions. In addition to the composites, the survey also includes two questions that ask respondents to provide an overall grade on patient safety for their work area/unit and to indicate the number of events they reported over the past 12 months. In addition, respondents are asked to provide limited background demographic information about themselves (their work area/unit, staff position, whether they have direct interaction with patients, tenure in their work area/unit, etc.). Most of the questionnaire items require respondents to answer on a 5-point Likert scale in terms of agreement (strongly agree, agree, neither, disagree, strongly disagree) or frequency (always, most of the time, sometimes, rarely, never).

4.8.2 Data collection personnel

A total of six trained data facilitators, three supervisors and principal investigator were participated in the study for the successful completion of the data collection. The data

facilitators and supervisors had a minimum of BSc degree in Nursing, Midwifery and Public health officer.

4.8.3 Data collection technique

The self-administered questionnaires were distributed by the data facilitators for the study participants. The data facilitators had a list of participants who should take the questionnaire in order to trace back who finally return back the questionnaire and to address those who did not take the questionnaire provided that they are eligible. After three days, the questionnaires were collected by the facilitator.

4.9 Data analysis procedures

The data was entered into EpiData version 3.1 and analyzed using statistical software package for social science students SPSS V. 23.0. Descriptive statistics including means and standard deviations was used to describe participants' characteristics and dimensions of patient safety cultures. Frequency distributions were used to organize the data and present the responses obtained.

The guidelines proposed by AHRQ were first used to analyze and interpret the respondents' perceptions on patient safety culture composites. Each item had five responses with numerical value of (1-5), in which negatively worded items in the survey were reverse coded to ensure that positive answers indicate a higher score.

For each patient safety culture dimensions, the mean of the responses was calculated by adding the Likert scale responses of the individual for the respective dimension and dividing by the number of items under that construct (dimension). Then to calculate the safety culture scores for each dimension: mean of the dimension was multiplied by 20 to convert to a 100-point interval scale. Because, the Likert scale data were analyzed as an ordinal data and needs to be transformed in to interval scale for regression analysis. After calculating the dimensional score, to get the percentages of positive response; the number of participants who have score of ≥75 were divided by the total number of participants.

Reliability test was performed for patient safety culture dimensions by using the Cronbach 's alpha. Which was between 0.64 for "management support for patient safety" and 0.87 for "overall perception of patient safety" which indicates they are within the recommended ranges.

Multi-collinearity test was checked by using variance inflation factors (VIF) and tolerance test. Accordingly, all tolerance values were greater than 0.1 and VIF were less than 10. So, any significant relationships found are not inflated by correlations between the predictor variables.

Durbin–Watson test was checked to test for serial correlations between errors and the result was 2.094 and 2.214 which is so close to 2 that the assumption has almost certainly met. This indicates there were independent of errors or for any observations the residual terms were lack autocorrelation.

On the first model, respondent with different background characteristics (age, sex, professional category, experience in profession, hospital unit/wards, experience in the hospital, experience in the hospital unit, contact with the patient and work hour per week) were regressed to determine the impact on the score of patient safety culture as measured by overall perception of patient safety. The categorical variables were transformed into dummy variables before regression.

To examine the dimensions of patient safety culture that were significantly related to outcome dimension of patient safety culture; "overall perception of patient safety", multivariate linear regression analysis was used. Significance level at 95% CI and P-value <0.05 were used for prediction of outcome variable.

4.10 Data quality management

The Questionnaire was prepared in English and translated to Amharic by the principal investigator then translated back to English by another translator to compare the consistency. Before the actual data collection, pretest was conducted on 10% of the sample size at Laska primary hospital. Based on the feedback, appropriate amendment was made on the tool and the finding was excluded from the main study. Data facilitators and supervisors were trained for two days. Before, the data was entered in to the electronic data, each data was coded, cleaned and checked for its completeness. Questionnaires with completely blank or responses only for the background demographic questions in the survey was excluded from the analysis.

4.11 Ethical consideration

Ethical clearance for the study was obtained from Institutional Review Board of Jimma University Institute of Health. An official support letter from the university was written to administrative body of Gamo Gofa zone health office. Data collection was under taken after

permission had been obtained from hospitals and every study participant. The objective of the study was explained for every participant and was asked to give information only after they give their consent. No person was obligated to participate to the study without his or her consent.

To ensure the confidentiality of the participants, the questionnaire did not include any question or section seeking personal information that disclose their identity. The paper surveys were stored in a secure place and will being accessed only by the investigator. After the data were entered and data cleaning was completed, previous ID numbers were replaced by new randomly assigned ID numbers. Then the data will be kept secure until Jan, 2020 then deleted.

4.12 Dissemination of Results

This study will be presented to Jimma University scientific community as part of the partial fulfillment of Masters of Science in Adult Health Nursing. Then it will be disseminated or communicated to the Gamo Gofa zone health bureau and respective hospitals after it is approved by Jimma University School of Nursing and Midwifery. Further attempt will be made to publish it on national or international scientific journals.

CHAPTER FIVE: RESULTS

5.1 Background characteristics of the respondents

Among 440 health care workers who had received questionnaire, 401 completed and returned which makes a response rate of 91.14%.

From the respondents 225 (56.1%) were working in Arbaminch general hospital, more than half of the them were males 217 (54.1%) and the mean age of the workers was 32.98 (± 8.55) years.

Regarding the professions of the respondents more than half 213 (53.1%) were nurses followed by physicians 47(11.7%). Majority of the participants 312 (77.8%) had working experience of 1 year to 10 years. Three hundred fifty-nine (89.5%) participants reported as working in the hospital from 40-59 hours per week and 307 (76.6%) of the workers had direct contact with the patient (table 1).

Table 1; Background characteristics of study participants in Gamo-Gofa zone public hospitals, south Ethiopia 2018

Characteristics	Frequency	Percentage %
Hospital name		
Arbamich hospital	225	56.1
Sawula hospital	105	26.2
Chencha hospital	71	17.7
	401	100.0
Sex		
Male	217	54.1
Female	184	45.9
	401	100.0
Hospital work unit		
Medical ward	77	19.2
Surgical ward	62	15.5
Obstetrics ward	60	15.0
Pediatrics ward	42	10.5
Outpatient/emergency	53	13.2
Laboratory unit	32	8.0
Pharmacy unit	27	6.7
No specific area	16	4.0
Others [a]	32	7.9
	401	100.0
Professional category		
Nurses/Midwives	213	53.1
Physicians	47	11.7
Health officers	27	6.7

Pharmacists/druggists	27	6.7
Lab technicians/technologists	32	8.0
Radiographers/technologists	13	3.2
Administration	13	3.2
Others [b]	29	7.2
	401	100.0
Service year in profession		
Less than 5 years	177	44.1
6 to 10 years	135	33.7
11 to 15 years	49	12.2
16 to 2o years	8	2.0
21 years and above	32	8.0
	401	100.0
Service year in the current hospital		
Less than 5 years	220	54.9
6 to 10 years	130	32.4
11 to 15 years	24	6.0
16 to 2o years	6	1.5
21 years and above	21	5.2
	401	100.0
Experience in current unit of hospital		
Less than 5 years	309	77.1
6 to 10 years	73	18.2
11 to 15 years	13	3.2
16 years and above	6	1.5
	401	100.0
Hours worked per week		
Less than 40	4	1.0
40-59	359	89.5
60 hours and above	38	9.5
	401	100.0
Direct contact with the patient		
Yes	307	76.6
No	94	23.4
	401	100.0

Others [a]; psychiatry ward, ophthalmology unit, radiology unit; **Others [b]**, psychiatry professionals, anesthetists, environmental health professionals, optometrists, emergency surgery/Gyn professionals, HMIS professionals

5.2 Patient Safety Culture Dimensions

The twelve dimensions were examined to determine areas of strength (those where percent positive rating exceeds 75%) and those requiring improvement (scoring below 50 %). The proportion of positive responses for the dimensions of the patient safety culture varied from 22.7% for ‘frequency of event reported’ to 76.3% for ‘teamwork with in units’ and the average positive response for all dimensions were 43.55% (table 2).

Table 2; Patient safety culture composite scores (percent of positive response) and the mean score with SD at public hospitals in Gamo- Goffa zone south Ethiopia,2018

Dimensions	**No of items**	**% positive response**	**Mean(SD)**
Teamwork within units/ departments	4	76.3	3.78(1.09)
Staffing	4	30.9	2.60(1.12)
Organizational learning- continuous improvement	3	57.6	3.29(1.27)
Non punitive response to errors	3	30.2	2.64(1.14)
Overall perception of patient safety	4	43.4	2.84(1.20)
Supervisor/manager expectations	4	52.6	2.07(1.21)
Communication openness	3	43.1	2.87(1.17)
Feedback and communication about error	3	35.7	2.74(1.20)
Frequency of events reported	3	22.7	2.42(1.04)
Management support for patient safety	3	50.1	3.06(1.17)
Teamwork across hospital units	4	50.6	3.03(1.19)
Handoffs and transitions	4	29.4	2.61(1.12)
Overall	42	43.55	2.83 (0.97)

5.3 Patient Safety grade and Numbers of event report

In this study, 12% and 22.2% of the respondents rate the overall patient safety grade of their hospital as ‘excellent’ and ‘very good’ respectively and 248 (61.8%) of the participants never reported at least one event in the last 12 months (figure 2).

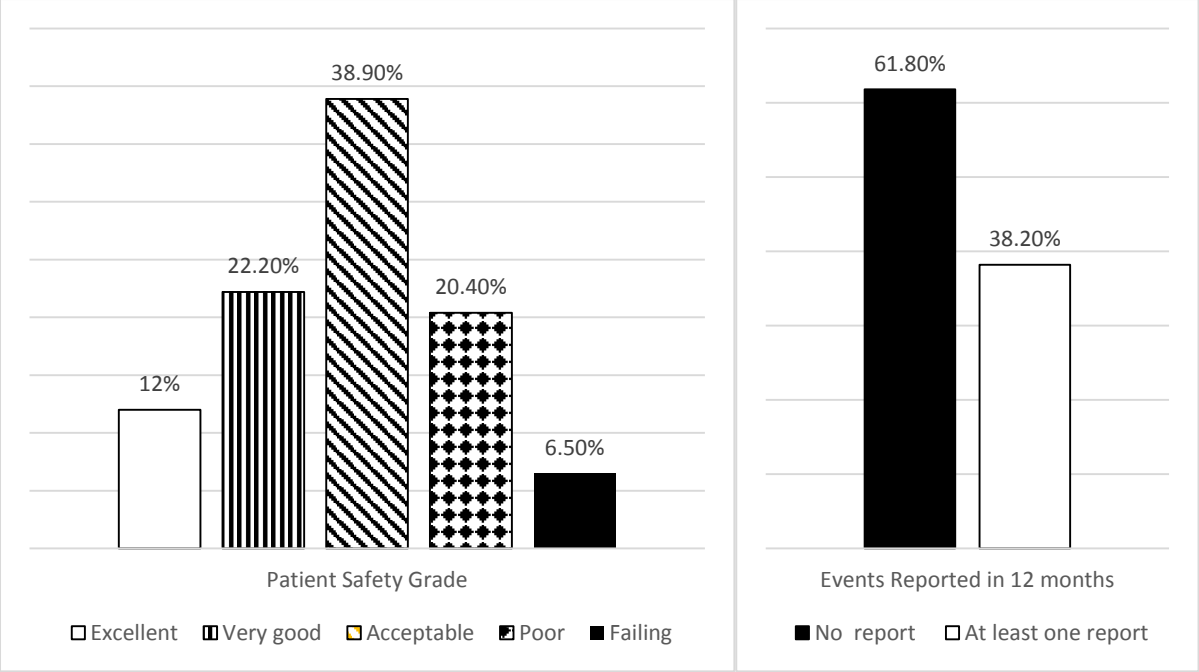

Figure 2; Patent safety grade and Number of event reported by study participants in Gamo-Goffa zone public hospitals, south Ethiopia 2018.

5.4 Background characteristics that influence the patient safety culture

In this model, the impact of respondent characteristics on the score of patient safety culture as measured by overall perception of patient safety was assessed. On the model background variables of respondents were accounted for 9.7 % of the variance in the overall perception of patient safety (R- square= 0.097, P= 0.024).

After we have controlled for other variables, respondents with duration of experience in their profession which were ranged from 6 to 10 years were score higher on overall perception of patient safety than participants with less than 6 years (β= 6.95, P=0.011). Similarly, participants with 6 to 10 years of working experience in the hospital had 6.71 higher score than participants with less experience (β= 6.712, p=0.011). Respondents who had direct contact with the patient had scored 5.98 higher on over all perception of patient safety than who had not (β= -5.98, P=0.034) (table 3).

Table 3 Respondents background characteristics as predictors on overall perception patient safety at Gamo- Goffa zone public hospitals, south Ethiopia, 2018.

Independent variables	Unstandardized Coefficients		Standardized Coefficients	Sig.	95.0% CI for B	
	B	SE	Beta		LB	UB
(Constant)	68.63	8.16		.000	52.58	84.69
Participants age	-.438	.279	-.156	.118	-.99	.112
Sex						
Male*						
Female	3.38	2.40	.070	.160	-1.34	8.11
Professional category						
Nurses/Midwives*						
Physicians	-1.26	3.893	-.017	.747	-8.91	6.39
Health officers	-1.42	4.935	-.015	.773	-11.13	8.28
Pharmacists/druggists	-1.61	4.935	-.017	.745	-11.31	8.09
Lab technicians/	-2.22	4.58	-.025	.63	-11.23	6.78
Others [b]	-.63	3.65	-.009	.86	-7.81	6.56
Service year in profession						
Less than 6 years*						
6 to 10 years	6.95	2.72	.137	.011	1.59	12.30
11 to 15 years	5.98	3.84	.082	.12	-1.58	13.54
16 years and above	-2.75	4.17	-.034	.51	-10.95	5.45
Experience the hospital						
Less than 6 years*						
6 to 10 years	6.712	2.640	.131	.011	1.52	11.90
11 to 15 years	3.792	5.130	.037	.46	-6.29	13.88
16 years and above	-3.45	4.87	-.036	.48	-13.02	6.11
Hours worked per week						
Less than 60 hours*						
60 hours and above	6.89	4.09	.084	.092	-1.14	14.92
Contact with the patient						
Yes*						
No	-5.98	2.82	-.106	.034	-11.52	-.441

Dependent variable: Overall perceptions of patient safety
** reference group*

5.5 Patient safety culture dimensions as predictors of overall perception of safety

On the second model, the effect of patient safety culture dimensions was tested for association on patient safety culture as measured by overall perception of patient safety. On multivariate regression model, 88% of variation in "overall perception of patient safety" was explained by the patient safety culture dimensions (R- square= 0.88, P< 0.001). After multivariate regression, three culture variables were significant predictors of the outcome variable. For a unit increase on the score of "communication openness", overall perception on patient safety

was increased by 0.62 (95% CI= 0.54, 0.70). Similarly, overall perception of patient safety increase by 0.21 (95% CI= 0.14, 0.29) for a one-unit increase in the score of the dimension "feedback and communication about error" and also a one-unit increase on dimension "supervisor/manager expectations and actions promoting patient safety" increased it by 0.131 (95% CI=0.027,0.234) (table 4).

Table 4; Association of dimensions of patient safety culture and overall perception patient safety at Gamo- Goffa zone public hospitals, south Ethiopia, 2018.

Independent variables	Unstandardized Coefficients		Standardized Coefficients	Sig.	95.0% CI for B	
	B	SE	Beta		LB	UB
(constant)	-.303	1.646		.854	-3.54	2.933
Teamwork within units/	-.029	.025	-.026	.251	-.078	.020
Staffing	.062	.035	.058	.079	-.007	.130
Supervisor/manager expectations	.131	.053	.132	.014	.027	.234
Organizational learning - continuous improvement	-.005	.035	-.006	.883	-.075	.065
Non punitive response to errors	-.014	.038	-.013	.708	-.088	.060
Communication openness	.616	.037	.604	.000	.543	.690
Feedback and communication about error	.213	.037	.213	.000	.140	.286
Frequency of events reported	.009	.034	.008	.784	-.058	.077
Management support for patient safety	-.026	.056	-.025	.650	-.136	.085
Teamwork across units	.097	.053	.096	.070	-.008	.202
Handoffs and transitions	-.051	.039	-.048	.192	-.128	.026

Dependent variable: Overall perceptions of patient safety

CHAPTER SIX; DISCUSSION

This study assessed the current status of patient safety culture in Gamo- Gofa zonal hospitals by using the Amharic version of AHRQ's Hospital Survey on Patient Safety Culture tool. Based on the result the average positive result for all dimensions in this study was 43.55% which is comparable with local studies done in Jimma zone hospitals 46.7% and Amhara region 46% (43,44). Whereas it is lower than studies done in USA 65%, Netherlands 52.2%, China 65%, Taiwan 64%, Palestine 62% and 62.7 % in Srilanka (29,33,35,39). This difference might be due to the difference in the socioeconomic status, the difference in participants' perception, the difference in staffing and hospital infrastructure.

The result indicates only one dimension "teamwork within units/ departments" was fit the criteria of good patient safety culture or area of strength which is ≥75; whereas dimensions "staffing, non-punitive response to errors, overall perception of patient safety, communication openness, feedback and communication about error, frequency of events reported and handoffs and transitions" were fall below 50% of percent positive results that is poor/low patient safety culture area that needs improvement (48).

In this study, score for 'staffing' was 30.9% which indicates most of the respondents felt that there was a shortage of health professionals in the study area that could handle the work load. It was in line with studies done in other regions of the country. Studies done in Jimma zone hospitals and northern part of the country reveals a 35.25% and 26% of score on this dimension (43,44). And also the Ethiopian health workforce ratio to population is 0.7 per 1000 which is lower than the WHO recommendation 2.3 per 1000 population (49). Together these results reveals that staffing is the challenge of the country. It may be due to high turnover of professionals and brain drain because of low wages or poor working conditions in the country. This may affect the continuity of care, establishment of standard protocols for care, enhance the workload on the other staffs and overall hamper the quality of care.

Punitive culture was experienced in these hospitals which was evidenced by majority of the staffs (70%) feel like their mistakes are held against them and worry about mistakes they made are kept in their personnel file. This view was supported by only 22.7% of participants' either report events 'most of the time or always' and about 62% of participants didn't report any event in the last 12 months. Together this values indicates that staffs were scared to report errors and there may be a strong blame culture in the institutions that errors are not seen as an opportunity. This is in line with another studies done in the country (43,44). However, the Institute of

Medicine recommend institutions to move from a culture of blame to one in which errors are treated not as personal failures but as opportunities to improve the system and prevent harm (1).

The score for "supervisor/manager expectations and actions promoting patient safety" and "management support for patient safety" in the study area were 52.6% and 50.1% respectively. Which is lower than studies done in USA hospitals, Taiwan and Saudi Arabia (29,37). These may be their superiors are open to staff ideas, they are encouraged to say alternative viewpoints or express disagreement, may be managers are providing a good environment in which it is safe to admit errors and understand why the errors occurred.

Regarding communication in the institutions, the results were 43.1% for "communication openness" and 35.7% for "feedback and communication about error" in the study area. Which indicates majority of staffs were afraid to ask questions if they see something that may negatively affect patient care and also didn't get feedback about changes put into place based on their event reports. It is in line with studies done in Taiwan, Saudi Arabia and Jordan hospitals (29,37,38) whereas lower than USA and Netherland hospitals (29). This may be due to cultural differences especially communication styles. Western countries tend to be direct in communication, expect people to speak frankly and in a straightforward manner.

With regard to the hospitals overall grading on patient safety, very few of the respondents 34.2% either grades their hospitals as excellent or very good. It is much fewer when compared with that in the Palestine (63.8%), Saudi Arabia (69.6 %), Netherlands (63%), Taiwan (51%) and the USA 76% (29,37,39). On the other hand, with respect to the number of events reported over the past 12 months, around two third 61.8% of the respondents never reported at least one event. That is lower when compared with studies done in Palestine 57.5 %, Saudi Arabia 57% and USA 45% of participants report at least one event (29,37,39).

Respondents with different background characteristics were significantly affects the score of respondents on the overall perception of patient safety. Participants with the experience year of 6-10 years on their profession and hospital had scored higher than with experience less than 6 years. It was also supported by previous studies in which more experienced health care staff scored higher for the patient safety culture dimensions (31,46). This might be due to the fact that the staff with short experience had not adapted to the existing culture. Workers who had a direct contact with the patient had a high perception than who had not. A study conducted in Cairo also found statistical difference on this dimension (42).

Among the dimensions of patient safety culture, "communication openness, feedback and communication about error and supervisor/manager expectations and actions promoting patient safety" were significant predictors with the 'overall perception of patient safety'. This finding is consistent with previous studies conducted in different countries that examined these relationships in hospital employees and found positive relationships between the patient safety culture dimensions and overall perception on patient safety (30,31,35). Literatures also show communication, flow of information and management and leadership commitment had an important effect on patient safety, risk reduction and enhance the event reporting system (51,52).

Limitations of the study

- HSPSC does not calculate an overall score of patient safety culture as a one variable. Because, the validation of such score is complex and raises the problem of choosing the dimensions to be considered and their weightings.
- The quantitative assessment of patient safety culture using a self-administered questionnaire can be associated with a declaration bias. Indeed, self-administered questionnaire may influence the reaction of those who, for fear of reprisal or prosecution, will give social answers that do not reflect reality.

CHAPTER SEVEN: CONCLUSION AND RECOMENDATIONS

7.1 Conclusion

There was a low status of patient safety culture in Gamo- Gofa zone public hospitals. The reported dimensions including "staffing, non-punitive response to errors, overall perception of patient safety, communication openness, feedback and communication about error, frequency of events reported and handoffs and transitions" were poor or low patient safety culture areas that needs an improvement.

This study also demonstrated that respondents with different background characteristics (contact with the patient, work experience in profession and experience in the hospital) had significantly different score on the overall perception of patient safety.

Patient safety culture dimensions: "feedback and communication about error, hospital manager/supervisor expectation and actions promoting patient safety and communication openness" were the positive predictors of the "overall perception on patient safety".

7.2 Recommendations

Based on our result we suggest institutions in order to improve a positive patient safety culture by considering and intervening on the prioritized factors that we had shown as important in our study. In order to enhance the overall perceptions on patient safety, the prioritized interventions have to be on enhancing communication system in the institution, encouraging event reporting behavior and increasing the support for patient safety from the top- level hospital administrations. Which needs the collective responsibility from government, the health institutions, managers, health workers, health policy makers and researchers as a whole.

To Government;

- The government should have to assign adequate health professionals to those institutions and make an environment suitable for them.

To Health Institutions;

- Find a way to intervene on the identified gaps by using appropriate methods like; providing training and preparing guidelines.
- Should improve a continuous learning environment and organizational support for health professionals in order to improve safe practices that lead to provision of high-quality care.

- Enhance the skill and commitment of their managers to practice the safety culture and improve the quality of care.
- Have to do regular patient safety culture assessments in their organizations and to make changes based on the results of such assessments

To Managers of the hospitals:

- Should act in a way to enhance team work across units, take measures based on reports and give credit to good performances.
- Should create a learning culture by being positive for staff ideas, discussions and make them to feel free and confident to make error reporting

To Health workers

- Should have to enhance their error reporting behavior, minimize communication gap and give an attention for patient safety.
- Health care staffs from different units regardless their profession has to work in team in harmonized way for a better organizational patient safety and overall quality of service.

To Researchers and Health policy makers

- Since this is the first study in the study area, it is an important step in examining the current status of patient safety culture in those hospitals.
- Further studies are needed with mixed methods to better explore professional attitude towards patient safety culture; with another variable (like training, presence of guidelines and protocols in hospitals) to detect possible factors that are associated with the safety culture and with another study participant (including patients) and data collection methods (interviewing, checklists) in order to have a clear view of status of safety culture.

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ANNEXES

ANNEX-I: Information Sheet in English Version

A questionnaire prepared on the title; assessment of Patient safety culture in Gamo Gofa zone public hospitals, southern Ethiopia, 2018

Hello, my name is _____ and I am research assistant and working with Mr. Biniyam Demisse from Jimma University. He is doing a research on the assessment of the of patient safety culture in Gamo Gofa zone public hospitals as partial fulfillment for Master ‘s Degree in Adult Health Nursing. Your participation in this research is based on sampling procedures from all of the staffs in this hospital and the questionnaire is about your opinion about patient safety culture in your Hospital. If you decide to participate in this study, our data will be collected by self-administered questionnaires. So you have to carefully read the instruction carefully, choose/write your response accordingly and return it within 3 days. It takes a maximum of 10-15 min to complete the questioner. The scientific value of the survey depends upon the reliable and accurate representation of the individual views of participants. Therefore, your participation is very important and greatly appreciated which can be used further improve quality of patient care and working conditions in your hospital.

Your name will not be written in this form and will never be used in connection with any information you will tell us. There is no possible risk associated with participating in this study except the time spent for responding and fill to the questionnaire. All information given by you was kept strictly confidential will be maintained by means of keeping the data’s on secured personal computer which the investigator only access. The data will be kept secure until Jan, 2020 then deleted. Your participation is voluntary and you are not obligated to participate you do not want to participate. If you feel discomfort with the questionnaire, it is your right to discontinue at any time you want. If you have questions regarding this study or would like to be informed of the results after its completion, please feel free to contact the principal investigator.

Principal Investigator;

Name- Biniyam Demisse

Phone no- +251916706842

E-mail- bini.demisse@gmail.com

ANNEX- II: Certificate of Consent in English

Are you volunteer to complete the questionnaire?

Yes ---------- (Thank you, give the questionnaire)

No ---------- (Thank you stop)

I have read the foregoing information and I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Hospital name ----------

Questionnaire code ----------

Name and signature of facilitator----------

Name and signature of supervisor----------

Date of offering ----------

General Instructions:

- Do not write or sign your name on the questionnaire.
- Answer each question by selecting the response that best applies to you or best represents your opinion.
- If for any reason you do not want to answer a question, leave it blank.

ANNEX-III Questionnaire in English Version

Questionnaire To assess the status of Patient Safety Culture in Gamo Gofa zone public hospitals, South Ethiopia, 2018

Part I: Background information of the participants

S.N	Questions	Response
101	How old are you?	_____years
102	Sex	1. Male 2. Female
103	What is your primary work unit/ department or clinical area of the hospitals where you spent most of the work time or provides most of the clinical service?	1. Many different work area/No specific unit 2. Medicine/non-surgical 3. Surgery 4. Obstetrics 5. Pediatrics 6. Emergency/OPD 7. Psychiatry/mental health 8. Rehabilitation 9. Pharmacy 10. Laboratory 11. Radiology 12. Anesthesiology 13. Other_____
104	What is your staff position in this hospital? Select ONE answer that best describes your staff position.	1. Medical doctor 2. Nurse 3. Pharmacist 4. Midwife 5. Health officer 6. Lab technician 7. Radiology Technician 8. Anesthetist 9. Psychiatry 10. Administration/Management 11. Environmental/Occupational health 12. Others_____

105	How long have you worked in your current specialty or profession?	_____years
106	How long have you worked in this hospital?	_____years
107	How long have you worked in your current hospital work area/unit?	_____years
108	Typically, how many hours per week do you work in this hospital?	_____hours
109	In your staff position, do you typically have direct interaction or contact with patients?	1. YES, I typically have direct interaction or contact with patients. 2. NO, I typically do NOT have direct interaction or contact with patients

Part II: Patient Safety culture dimensions

SECTION A: Your Work Area/Unit Please indicate your agreement or disagreement with the following statements about your work area/unit. ***1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5-Strongly Agree***						
I.	**Teamwork within units/departments**					
201	People support one another in this unit	1	2	3	4	5
202	When a lot of work needs to be done quickly, we work together as a team to get the work done.	1	2	3	4	5
203	In this unit, people treat each other with respect.	1	2	3	4	5
204	When one area in this unit gets really busy, others help out.	1	2	3	4	5
II.	**Staffing**					
205	We have enough staff to handle the workload.	1	2	3	4	5
206	Staff in this unit work longer hours than is best for patient care. (negatively worded)	1	2	3	4	5
207	We use more agency/temporary staff than is best for patient care. (negatively worded)	1	2	3	4	5
208	We work in "crisis mode" trying to do too much, too quickly. (negatively worded)	1	2	3	4	5
III.	**Organizational Learning—Continuous Improvement**					

209	We are actively doing things to improve patient safety.	1	2	3	4	5
210	Mistakes have led to positive changes here.	1	2	3	4	5
211	After we make changes to improve patient safety, we evaluate their effectiveness.	1	2	3	4	5
IV.	**Non punitive Response to Errors**					
212	Staff feel like their mistakes are held against them. (negatively worded)	1	2	3	4	5
213	When an event is reported, it feels like the person is being written up, not the problem. (negatively worded)	1	2	3	4	5
214	Staff worry that mistakes they make are kept in their personnel file. (negatively worded)	1	2	3	4	5
V.	**Overall Perceptions of Patient Safety**					
215	Patient safety is never sacrificed to get more work done.	1	2	3	4	5
216	Our procedures and systems are good at preventing errors from happening.	1	2	3	4	5
217	It is just by chance that more serious mistakes don't happen around here. (negatively worded)	1	2	3	4	5
218	We have patient safety problems in this unit. (negatively worded	1	2	3	4	5
SECTION B: Your Supervisor/Manager						
Please indicate your agreement or disagreement with the following statements about your immediate supervisor/manager or person to whom you directly report						
1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree						
VI.	**Supervisor/Manager Expectations & Actions Promoting Patient Safety**					
301	My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures.	1	2	3	4	5
302	My supervisor/manager seriously considers staff suggestions for improving patient safety.	1	2	3	4	5
303	Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts. (negatively worded)	1	2	3	4	5
304	My supervisor/manager overlooks patient safety problems that happen over and over. (negatively worded)	1	2	3	4	5

SECTION C: Communications						
How often do the following things happen in your work area/unit?						
1- Never, 2- Rarely, 3-Sometimes, 4- Most of the time, 5- Always						
VII.	**Communication Openness**					
401	Staff will freely speak up if they see something that may negatively affect patient care.	1	2	3	4	5
402	Staff feel free to question the decisions or actions of those with more authority.	1	2	3	4	5
403	Staff are afraid to ask questions when something does not seem right. (negatively worded)	1	2	3	4	5
VIII.	**Feedback & Communication About Error**					
404	We are given feedback about changes put into place based on event reports.	1	2	3	4	5
405	We are informed about errors that happen in this unit.	1	2	3	4	5
406	In this unit, we discuss ways to prevent errors from happening again.	1	2	3	4	5
SECTION D: Frequency of Events Reported						
In your hospital work area/unit, when mistakes happen, how often are they reported?						
1- Never, 2- Rarely, 3-Sometimes, 4- Most of the time, 5- Always						
IX.	**Frequency of Events Reported**					
501	When a mistake is made, but is caught and corrected before affecting the patient, how often is this reported?	1	2	3	4	5
502	When a mistake is made, but has no potential to harm the patient, how often is this reported?	1	2	3	4	5
503	When a mistake is made that could harm the patient, but does not, how often is this reported?	1	2	3	4	5
SECTION E: Your Hospital						
Please indicate your agreement or disagreement with the following statements about your hospital						
1- Strongly Disagree, 2- Disagree, 3- Neutral, 4-Agree, 5-Strongly Agree						
X.	**Management Support for Patient Safety**					

601	Hospital management provides a work climate that promotes patient safety.	1	2	3	4	5
602	The actions of hospital management show that patient safety is a top priority.	1	2	3	4	5
603	Hospital management seems interested in patient safety only after an adverse event happens. (negatively worded)	1	2	3	4	5
XI.	**Teamwork Across Units**					
604	There is good cooperation among hospital units that need to work together.	1	2	3	4	5
605	Hospital units work well together to provide the best care for patient	1	2	3	4	5
606	Hospital units do not coordinate well with each other. (negatively	1	2	3	4	5
607	It is often unpleasant to work with staff from other hospital units. (negatively worded)	1	2	3	4	5
XII.	**Handoffs & Transitions**					
608	Things "fall between the cracks" when transferring patients from one unit to another. (negatively worded)	1	2	3	4	5
609	Important patient care information is often lost during shift changes. (negatively worded)	1	2	3	4	5
610	Problems often occur in the exchange of information across hospital units. (negatively worded)	1	2	3	4	5
611	Shift changes are problematic for patients in this hospital. (negatively worded)	1	2	3	4	5
SECTION F: Patient Safety Grade For item, please circle the single most appropriate latter ***A- Excellent, B- Very Good, C- Acceptable, D- Poor, E-Failing***						
701	Please give your work area/unit in this hospital an overall grade on patient safety.	A	B	C	D	E
SECTION G: Number of Events Reported						
801	In the past 12 months, how many event reports have you filled out and submitted?	_____event reports				

ANNEX-IV Information Sheet in Amharic Version

<u>በጂማ ዩኒቨርሲቲ ጤና እንስቲትዩት በጤና ሳይንስ ፋካሊቲ የነርስንግና ሚድዋይፈርይ ትምህርት ቤት</u>

<u>ክፍል-1 መረጃ መስጫ ቅፅ</u>

ጤና ይስጥልኝ ፣ ስሜ ----------ይባላል: በጂማ ዩኒቨርሲቲ ከአቶ ቢኒያም ደምሴ ጋር በጥናት ስራ ላይ እየተሳተፍኩ ስሆን ለሁለተኛ ድግሪ መመረቂያ ይሆናቸዉ ዘንድ ***"Assessment of the of Patient Safety Culture in Gamo Gofa zone public hospitals"*** በሚል ርዕስ በሆስፒታላችን እየሰሩ ይገኛሉ፡፡ እርሶ የዚህ ጥናት አካል ይሆኑ ዘንድ በዕጣ ከሚሰሩበት ክፍል የተመረጡ ስሆን መጠይቁ የእርሶን አመለካከት በሆስፒታላችሁ ስላለዉ የታካምዎች ደህንነት ባህል ምን እነንደምመስል ይጠይቃል፡፡ በጥናታችን ላይ ለመሳተፍ ከተስማሙ መጠይቃችንን እቤትዎ ወስደዉት እባክዎ እያንዳንዷን ጥያቄ በትክክል አንብበዉና በጥንቃቄ ሞልተዉት በሶስት ቀናት ዉስጥ እንድመልሱት በትህትና እንጠይቃለን፡፡ ጥያቄዎቹን ሙሉ በሙሉ ለመጨረስ ከ10-15 ደቂቃ ይፈጃል፡፡ የጥናታችን ጥራትና ተዓማንነት የሚለካዉ፡ የሚረጋገጠዉ እርስዎ በምሰጡት፤ በሚሞሉት መጠይቅ መሰረት ስለሆነ የእርስዎ ተሳትፎና ጥያቄዎቹን በሙሉ መመለስ ወሳኝና የመስራቤትዎን የአገልግሎት ጥራት እና የስራ ሁኔታ ለማሻሻል ጠቃም ግብዓት ነዉ፡፡

በጥያቄዉ ላይ የመሳተፍም ሆነ ያለመሣተፍ ሙሉ መብት አልዎት፡፡ በመሳተፍዎ ከሚሰጡት ደቂቃ ዉጪ የሚመጣብዎ ምንም አይነት ጉዳት አይኖርም፡፡ የሚሰጡን መረጃ ላይ ማንነትዎን የሚገልፅ ምንም አይነት ነገር አይኖርም ወይም አያስቀምጡ፡፡ መረጃዎን ከጥናቱ አስተባባር በቀር ማንም ማወቅ አይችልም አስተባባርዉ ለስራዉ እንድረዳዉ እስከ ጥር 2012 ዓ/ም ድረስ በግል ኮምፕዉተሩ ላይ ይይዘወዉነና ያጠፋዋል፡፡ በጥናቱ ላይ ስለምያጋጥምዎ ማንኛዉም ጥያቄ እባክዎ በነፃነት የጥናቱን አስተባባሪ ያግኙ፣ ይጠይቁ፡፡

የአስተባባሪዉ አድራሻ ፤

ስም- ቢኒያም ደምሴ

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ANNEX-V Certificate of Consent in Amharic Version

<u>ክፍል-2፤ የስምምነት ዉል</u>

በመጥይቁ ላይ ለመሣተፍ ፍቃደኛ ኖት?

አዎ ----------(አመሰግናለሁ፣ መጠይቁን ስጥ!)

አይደለሁም------- (አመሰግናለሁ፣ አቁም!)

ከላይ የተጠቀሰዉን መረጃ አንብበዋለሁ እና ማንኛዉንም ጥያቄ የመጠየቅ እድል ስላለኝ በመጠይቁ ላይ ለመሳተፍ ተስማምቻለሁ፡፡

የመጠይቁ ቁጥር _____

የሆስፒታሉ ስም _____

መጠይቁን የሰጠዉ ስምና ፍርማ _____

የተቆጣጣሪዉ ስምና ፍርማ_____

መጠይቁ የተሰጠበት ቀን _____

<u>መመሪያ ፤</u>

- በመጠይቁ ላይ ስምዎንና ፍርማዎን አያኑሩ
- ለእያንዳንዱ ጥያቄ የእርስዎን አመለካከት የሚያሳየዉን መልስ ይምረጡ
- መመለስ የማይፈልጉት ጥያቄ ካለ ይዝለሉት

ANNEX-VI Questionnaire in Amharic Version

1. የመልስ ሰጪው አጠቃላይ መረጃ

ኮድ	ጥያቄዎች	መልስ
101	ዕድሜዎት ስንት ነው?	_____ዓመት
102	ፆታዎ/ት ምንድንነወ?	1. ወንድ 2. ሴት
103	በሆስፒታሉ ዉስጥ በየትኛዉ ክፍል ነዉ የምሰሩት፤ አገልግሎት የምሰጡት?	1. በተለያዩ ቦታዎች፤ ቋም ቦታ የለኝም 2. ሜድካል ዋርድ 3. ሰርጂካል ዋርድ 4. አብስታትርክስ ዋርድ 5. ፐዲያትሪክስ ዋርድ 6. ድንገተኛ ክፍል 7. ሳይካትር ዋርድ 8. ማገገምያ ክፍል 9. ፋርማሲ ክፍል 10. ላብራቶሪ ክፍል 11. ራድዮሎጂ ክፍል 12. አንስተቸዮያ ክፍል 13. ለላ ካለ _____
104	በዚህ ሆስፒታል የስራ ሙያዎ ምንድንነው?	1. ሐኪም 2. ነርስ 3. ፋርማሲስት 4. ምድዋይፈሪ 5. ጤና መኮንን 6. ላብራቶሪ ባለሙያ 7. ራድዮሎጂ ባለሙያ 8. አንስተቸዮያ ባለሙያ 9. ሳይካትሪይ 10. የአስተዳዳር ክፍል 11. እንቫይሮመንታልስት 12. ሌላ (ይገለጽ)_____
105	በሙያዎ ምን ያክል ጊዜ አገልግለዋል?	_____ዓመት
106	ምን ያክል ጊዜ በዚህ ሆስፒታል አገልግለዋል?	_____ዓመት

107	አሁን ባሉበት የስራ ክፍል/ኬዝቲም ለምን ያህል ጊዜ አገልግለዋል?	_____ዓመታት
108	በሆስፒታል በ1 ሳምንት ውስጥ ስንት ሰዓታት ያገለግላሉ?	_____ ሰዓታት
109	በምሰሩበት ክፍል ዉስጥ ከበሽተኛ ጋር ቀጥተኛ የሆነ ግንኙነት ወይም ንክክ አልዎት?	1. አዎ አለኝ 2. አይ የለኝም

ክፍል-2 ተሳታፍዉ በሆስፕታሉ ዉስጥ ስላለዉ የታካምዎች ደህንነት ባህል ያለዉ አመለካከት

ሀ. የምሰሩበትን ክፍል በተመለከተ እባክዎትን ከታች ባለት እርስዎ ስለምሰሩበት ሆስፕታል በተገለፁ ሀሳቦች መስማማት/አለመስማማትዎን ይጠቁሙ ለእያንዳንዱ ጥያቄ የሚስማማዎትን ያክብቡ ***ሥ- በጣም አልስማማም 2- አልስማማም 3- ገለልተኛ 4- አስማማለሁ 5- በጣም እስማማለሁ***						
I.	**Teamwork within units/departments (በስራ ክፍላችን ተባብረን የመስራት ሁኔታ)**					
201	በስራ ክፍላችን እርስበርስ እንደጋገፋለን	1	2	3	4	5
202	የስራ ጫና ሲኖር በጋራ ተባብረን እንሰራለን	1	2	3	4	5
203	በስራ ክፍላችን ተከባብረን እንሰራለን	1	2	3	4	5
204	በተቋማችን በሌላ ስራ ክፍል ክፍተት ሲኖር እንተጋገዛለን	1	2	3	4	5
II.	**Staffing (የሰው ሃይልን በተመለከተ)**					
205	የስራ ጫናውን ለመወጣት የሚያችለን በቂ ሰራተኞች አሉን	1	2	3	4	5
206	በዚህ ክፍል ሰራተኞች ረጅም ሰዓት መስራት ለታካሚዎች ጥንቃቄ በጣም ጥሩ ነው***	1	2	3	4	5
207	ጊዜያዊ ሰራተኞች መጠቀም ለታካሚዎች የተሸለ ደህንነት ጥሩ ነው***	1	2	3	4	5
208	ብዙ ስራ በፍጥነት ለመስራት ጫና ውስጥ እንገባለን***	1	2	3	4	5
III.	**Organizational Learning—Continuous Improvement (ተቋማዊ ለውጥን በተመለከተ)**					
209	የታካሚዎችን ደህንነት ለማሻሸል በንቃት እየሰራን ነው	1	2	3	4	5
210	ግድፈቶች/ስህተቶች ለአወንታዊ ለውጦች ያመሩናል	1	2	3	4	5
211	የታካሚዎችን ደህንነት ለማሻሸል ለውጥ ካደረግንም በኋላ ውጤታማነቱንም እንገመግማለን	1	2	3	4	5
IV.	**Non punitive Response to Errors (ቅጣት የሌለበት ግብረ መልስ ስለመሰጠቱ)**					
212	ሰራተኞቹ ስህተቶቻቸው የሚያስወቅሳቸው መስሎ ይሰማቸዋል***	1	2	3	4	5
213	አንድ ድርጊት ሲፈጸም ለችግሩ መፍትሔ ከመስጣት ይልቅ የችግሩ ፈጣሪ ግለሰብ ተወቃሽ መስሎ ይሰማናል***	1	2	3	4	5
214	ሰራተኞቻችን ስህተቶቻቸው በማህደራቸው የሚቀመጥ ይመስላቸዋል***	1	2	3	4	5
V.	**Overall Perceptions of Patient Safety (አጠቃላ የታካሚወች ደህንነት በተመለከተ)**					
215	የታካሚዎች ደህንነት ብዙ ስራ ለመሥራት ሲባል አደጋ ላይ አይወድቅም	1	2	3	4	5

216	የስራ ሂደታችንና ደንባችን ችግሮች እንዳይፈጠሩ ለማድረግ ጥሩ ናቸው	1	2	3	4	5
217	እዚህ የጤና ችግር ያልተከሰተው የአጋጣሚ ጉዳይ ሆኖ ነው***	1	2	3	4	5
218	እዚህ የስራ ክፍል የህመምተኛ ደህንነት ችግር አለ***	1	2	3	4	5

ለ. የቅርብ አለቃዎን በተመለከተ

እባክዎትን ከታች ባለት የቅርብ አለቃዎን በተመለከተ በተገለፁ ሀሳቦች መስማማት/አለመስማማትዎን ይጠቁሙ

1. በጣም አልስማማም 2- አልስማማም 3- ገለልተኛ 4- አስማማለሁ 5- በጣም እስማማለሁ

VI.	**Supervisor/Manager Expectations & Actions Promoting Patient Safety (አለቃዎን በተመለከተ)**					
301	አለቃዬ የታካሚን ደህንነት በጠበቀ መልኩ ስራ ሲተገበር ደስ ይለዋል	1	2	3	4	5
302	አለቃዬ ከስራተኞቹ የሚመጡትን የታካሚዎችን ደህንነት ለማስጠበቅ የሚረዱ ሀሳቦችን ይቀበላል	1	2	3	4	5
303	የስራጫና በሚፈጠርበት ጊዜ ስራውን በፍጥነት እንድንሰራ ያደርጋል አማራጭ መንገዶችንም ተጠቅመን ቢሆን እንኳን***	1	2	3	4	5
304	አለቃዬ በታካሚዎች ደህንነት ላይ የሚፈጠሩ ችግሮችን ችላ ይላል***	1	2	3	4	5

ሐ. ዉይይትን በተመለከተ

ከዚህ ቀጥሎ የሚቀርቡ ጥያቄዎች ምን ያህል ጊዜ በሆስፕታላችሁ ይከሰታሉ? ለእያንዳንዱ ጥያቄ የሚስማማዊትን ያክብቡ

1. ምንም 2- በጣም አልፎአልፎ 3- ሳንዳንድ ጊዜ 4- ብዙውን ጊዜ 5- ሁል ጊዜ

VII.	**Communication Openness (በግልጽ ስለመነጋገር)**					
401	ሰራተኞቻችን የታካሚዎችን አገልግሎት የሚጎዳ ነገር ባዩ ጊዜ በነጻነት ይገልጻሉ	1	2	3	4	5
402	ሰራተኞቻችን በኃሊፊዎች ውሳኔ ወይም ድርጊት ያልገባቻውን በነጻነት ይጠይቃሉ	1	2	3	4	5
403	አንድ ድርጊት ትክክል ካልመሰላቸው ሰራተኞች ደፍረው አይጠይቁም***	1	2	3	4	5
VIII.	**Feedback & Communication About Error (ስህተቶች ሲከሰቱ ግብረመልስ ስለመስጠት እና ስለመወያየት)**					
404	በስራችን ስለመጣው ለውጥ ግብረመልስ ይሰጠናል	1	2	3	4	5
405	በስራ ክፍላችን ስህተት ሲከሰት እንድናውቅ ይደረጋል	1	2	3	4	5
406	በስራ ክፍላችን ስህተት ዳግም እንዳይፈጠሩ መከላከያ መንገዶችን እንወያየለን	1	2	3	4	5

መ. የችግሮች ሪፖርት ብዛት

ከዚህ ቀጥሎ የሚቀርቡ ጥያቄዎች ምን ያህል ጊዜ በሆስፕታላችሁ ይከሰታሉ?

1. ምንም 2- በጣም አልፎአልፎ 3- ሳንዳንድ ጊዜ 4- ብዙውን ጊዜ 5- ሁል ጊዜ

IX.	**Frequency of Events Reported**					
501	የተፈጠረው ስህተት በህመምተኛው ላይ ጉዳት ከማድረሱ በፊት ቢታወቅ እና እርማት ቢደረግ ምን ያህል ሪፖርት ይደረጋሉ?	1	2	3	4	5

502	ስህተት ቢፈጠር እና ህመምተኞችን የማይጎዳ ቢሆን እንኳ ምን ያህል ሪፖርት ይደረጋሉ?	1	2	3	4	5
503	ህመምተኞችን የሚጎዳ ስህተት ቢፈጠር ጉዳት ባያደርስ እንኳን ምን ያህል ሪፖርት ይደረጋሉ?	1	2	3	4	5

ሠ. ስለ ሆስፒታልዎ

እባክዎትን ከታች ባለት እርስዎ ስለምሰሩበት ሆስፕታል በተገለፀ ሀሳቦች መስማማት/አለመስማማትዎን ይጠቁሙ ለእያንዳንዱ ጥያቄ የሚስማማዎትን ያክብቡ

1. በጣም አልስማማም 2- አልስማማም 3- ገለልተኛ 4- አስማማለሁ 5- በጣም እስማማለሁ

X.	**Management Support for Patient Safety (የሆስፒታሉ አመራር ለታካሚዎች ደህንነት የሚያደርገው ድጋፍ)**					
601	የሆስፒታሉ አስተዳደር የታካሚችን ደህንነት የሚያበረታታ ምቹ የስራ ሁኔታ ያመቻቸል	1	2	3	4	5
602	የአስተዳደሩ ድርጊቶች ለታካሚዎች ደህንነት ቅድሚያ መሰጠቱን ያሳያል	1	2	3	4	5
603	አስተዳደሩ ስለታካሚዎች ደህንነት የሚያነሳው ችግሮች ከተከሰቱ በኋላ ነው***	1	2	3	4	5
XI.	**Teamwork Across Units (የሆስፒታሉ ሰራተኞች ከሌላ የስራ ክፍል ጋር አብረው)**					
604	በሆስፒታሉ የስራ ክፍሎች ጥሩ የሆነ ተባብሮ የመስራት ሁኔታአለ	1	2	3	4	5
605	ለታካሚዎች የተሸለ የህክምና አገልግሎት ለመስጣት ኬዝቲሞች በጋራ ይሰራሉ	1	2	3	4	5
606	የሆስፒታሉ የስራ ክፍልች በቅንጅት አይሰሩም***	1	2	3	4	5
607	ከሌላ የስራ ክፍሌ/ኬዝቲም/ ሰራተኞች ጋር መስራት አይመችም***	1	2	3	4	5
XII.	**Handoffs & Transitions (ስለታካሚወች ዝውውር እና የሰራተኞች ቅያሪን በተመለከተ)**					
608	ህመምተኞች ከአንድ የስራ ክፍል ወደሌላ ክፍል ሲዘዋወሩ ክፍተት አለ***	1	2	3	4	5
609	አስፈሊጊ የታካሚዎች መረጃ በፈረቃ ልውውጥ ጊዜ ይጠፋል***	1	2	3	4	5
610	በመረጃ ልውውጥ ጊዜ በአብዘኛው ችግር ይከሰታል***	1	2	3	4	5
611	በሆስፒታላችን የፈረቃ ልውውጥ ለታካሚዎቻችን አስቸጋሪ ነው***	1	2	3	4	5

ረ. Patient Safety Grade (የታካምዎችን ደህንነትን በተመለከተ)

ለጥያቄዉ፤ እባክዎ የምስማሙበትን መልስ የያዘዉን ፍደል ያክብቡ

ሀ እጅግ በጣም ጥሩ ለ በጣም ጥሩ ሐ ጥሩ መ ዝቅተኛ ሠ በጣም ዝቅተኛ

701	የምሰሩበት ሆስፕታል አጠቃላይ የታካምዎች ደህንነት አጠባበቅ ምን ይመስላል?	ሀ	ለ	ሐ	መ	ሠ

ሰ. Number of Events Reported (ሪፖርት የተደረጉ ክስተቶች ብዛት)

801	ባለፉት 12 ወራት ምን ያክል ክስተቶችን ሪፖርት አድርገዋል ወይም መዝግበዋል?	_____ ክስተቶችን

*** negatively worded questions

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 Institute of Health in effect at the time of grant is forwarded as the result of this application.

Name of the student: _____

Date. _____ Signature _____

APPROVAL OF THE FIRST ADVISOR

Name of the first advisor: _____

Date. _____ Signature _____

APPROVAL OF THE SECOND ADVISOR

Name of the second advisor: _____

Date. _____ Signature _____

APPROVAL OF THE INTERNAL EXAMINER

Name of the internal examiner: _____

Date. _____ Signature _____