

PROFESSIONALISM AND ITS PREDICTORS AMONG NURSES WORKING  
IN JIMMA ZONE PUBLIC HOSPITALS, SOUTH WEST ETHIOPIA

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## **Abstract**

**Background:** Nurses demonstrating the attributes of professionalism impact positively on patient satisfaction and health outcomes. Attributes of Professionalism include knowledge, spirit of inquiry, accountability, autonomy, advocacy, innovation and visionary, collaboration and collegiality, and ethics. The study determined the level of professionalism and its predictors among nurses working in Jimma Zone Public Hospitals, South west Ethiopia.

**Methods:** Institution based cross-sectional study design supplemented by in-depth interview was conducted in Jimma zone public hospitals from March 2 to March 18, 2015 and systematic sampling technique was used to select a total of 332 study subjects. Data were collected using self-administered questionnaires and qualitatively with an in-depth interview. Data were entered into EpiData version 3.1 and analysed using SPSS version 21.00. One-way analysis of variance, independent sample T-tests and Multivariable linear regression analysis was conducted to identify predictors of professionalism and significance was checked at  $p < 0.05$ . Qualitative data were analyzed using thematization technique.

**Results:** The respondents mean score of professionalism was  $22.27 \pm 4.35$  and only 88 (30.3%) of the nurses score high level of professionalism. The independent t- test and One-way analysis of variance result revealed age, sex and marital status were significantly associated with professionalism. The multivariable linear regression showed that professional self-image ( $\beta = .207$ ,  $p < .001$ ), organizational culture ( $\beta = .013$ ,  $p = .030$ ) and educational level ( $\beta = .443$ ,  $p = .012$ ) was a significant predictor of professionalism in nursing.

**Conclusion:** The professionalism levels of nurses were low. Organizational factors, professional self-image, age group and educational level were significant predictors of professionalism and being single, male and in the age between 20 and 29 showed high score on professionalism scale.

**Recommendation:** Matron, Human Resource Personnel and Chief Executive Officers of respective hospitals should develop various educational programmes for nurses and provide encouraging environments for obtaining higher degrees, in order to improve nursing professionalism.

**Key Words:** Attributes of professionalism, Nurse, Professionalism, Jimma zone

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## **Acronyms**

ANA	American Nurses Association
BIPN	Behavioral Inventory for Professional Nurse
BPG	Best Practice Guideline
CSA	Central Statistics Agency
CEO	Chief Executive Officer
ENA	Ethiopian Nurses Association
FGD	Focus Group Discussion
FMOH	Federal Ministry of Health
HPI	Hall's Professionalism Inventory
JU	Jimma University
JUSH	Jimma University Specialized Hospital
MDG	Millennium Development Goal
NAS	Nursing Assessment Survey
PCA	Principal Component Analysis
RN	Registered Nurses
RNAO	Registered Nurses Associations of Ontario
SD	Standard Deviation
SPSS	Statistical Package for Social Science

# CHAPTER ONE: INTRODUCTION

## 1.1 Background

The current definition of nursing, as defined by the ANA, is “the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations”[1].

As cited by Oweis AI “The definition of a profession consists of contributing characteristics. Nursing must achieve these characteristics in order to confirm its professional status. These characteristics include: a standard of education; professional organizations; commitment; autonomy; continuing education; body of knowledge and competencies; social value; and a code of ethics”[2].

Professionalism is a multi-dimensional concept; there is no one simple, generalizable definition, or how to assess it [2]. We can, however, define Professionalism as conceptualization of obligations, attributes, interactions, attitudes, and role behaviors required of professionals in relationship to individual clients and to society as a whole [3,4] or it is the conduct, aims or qualities that define a profession or a professional person [5]. The attributes of Professionalism include knowledge, spirit of inquiry, accountability, autonomy, advocacy, innovation and visionary, collaboration and collegiality, and ethics [6].

Nursing professional practice is a commitment to compassion, caring and strong ethical values; continuous development of self and others; accountability and responsibility for insightful practice; demonstrating a spirit of collaboration and flexibility [7]. Nurses who value professionalism exhibited adherence to practice standards and technical (psychomotor) competence [8].

The purpose of this paper is to determine the level of professionalism and describing the factors influencing professionalism in nurses and recommending strategies that may support the growth of nursing professionalism. Registered Nurses Association of Ontario (RNAO)-Best Practice Guideline (BPG), ‘Professionalism in Nursing’ will be used to guide the exploration of this topic.

## **1.2 Statement of the problem**

The professional status of nursing often is subjected to both internal and external debate. Historians, sociologists, and nurses themselves struggle to determine whether professionalism is present or absent in nursing [9]. Crucial to the plight of nursing as a profession is the prospect of enhancing members' status by increasing professionalism [10].

Historically, nurses have struggled to determine whether professionalism is present or absent in nursing. However, nursing has changed drastically in the past three decades, with the expansion of roles and autonomy in a variety of settings. Nurses have established credential and educational standards. The presence of nurses in health-care settings has become now more significant than ever. In the health-care system, nursing professionalization is in great demand [11].

The changing environment of health care, new financial, social and professional expectations of the next generation of nurses, and faulty institutional responsiveness, both in service and education, contribute to the growing concern over nursing professionalism. Regardless of where you sit, these factors seem to contribute to the current practice model of nursing [12].

The challenges in Nursing Professionalism are : Membership, communication, changes in nursing practice, diversity in the population, lack of autonomy, lack of leadership skills, nature of the job, long hours, health care risks, emotional load and undervalue by society, shortage of the nurses and limited opportunities [13].

Nursing is less attractive now because young people are hearing about poor working conditions, smaller salaries, and lack of prestige and power as a respected profession. This view of nursing must change if young people are to envision nursing as a viable career choice. This is a critical time to examine professionalism because young people are not choosing nursing as a career option. Instead they are seeking other opportunities in other career fields in which they believe they will be more valued as true professionals [14].

Professionalism has been recognized as an important element in nursing. In order to improve nursing professionalism, it is critical to make a detailed assessment of both the entirety of the profession and the individual behaviours that comprise professionalism [15]. However, little is known about the present state of professionalism among Ethiopian nurses.

From the previous studies worldwide on professionalism; Current position in nursing, current employment status, work setting, total years of nursing work experience, location of final degree attainment, Age of nurses [16, 17,] and organizational culture [18] were associated with the level of professionalism.

Providing professional nursing care has been reported to result in improved patient satisfaction and positive health outcomes [19]. Increased levels of professionalism have also been associated with outcomes of improved nursing performance and personal autonomy [20], ability to think critically [21], ability to reflect on practice [22], and empowerment [23]. In addition, nurses with a higher degree of professionalism have been reported to have enhanced levels of education and training; increased scholarship and involvement in research activities; and increased job satisfaction [19]. On the other hand, decreased levels of professionalism have been suggested to lead to negative outcomes including increased turnover and attrition and decreased productivity [24].

Lack of professionalism can also erode the trust that exists between a profession and the public as there is an expectation that a profession holds the interest of the public at heart. Loss of trust at this level can influence the profession's status as a reputable profession, possibly leading to the loss of self-regulation [3].

The RNAO BPG outlines the attributes of professionalism and discussion of the existing evidence and/or literature in the area, concluding with general statements that provide some strategies for success. The guideline was written to help the individual practitioner reflect on their own practice situation. It will assist educators to relay the concept of professionalism to students in a comprehensive and meaningful way. Finally, it will guide administrators in providing environmental supports that reinforce the attributes of professionalism [6].

The lack of nursing professionalism must be addressed from two perspectives: that of personal attributes and that of organizational influences on role development in addition to professional self-image. This concept has not been addressed in previous studies in Ethiopia; therefore this study tries to identify the relationship between organizational culture and nursing professionalism in addition to socio demographic, personal and professional identity.

## **CHAPTER TWO: LITREATURE REVIEW**

Professionalism incorporates attitudes representing levels of identification with and commitment to a particular profession. A professional continues to be developed through a socialization process that begins with formal, entry-level education to acquire knowledge and skills. Career and work experience follow, often with the adoption of professional role model attitudes and behaviors [25, 9].

Over the years, many people spoke about professionalization in nursing and its features. Therefore, there are multiple definitions and characteristics for professionalization in nursing [18, 26]. Also, researchers used different methods and tools for its assessment and evaluation.

Wynd used a descriptive comparative/correlational design with a random sampling method to explore factors contributing to the levels of nursing professionalism. The findings of Wynd's study revealed that significant association between the overall professionalism scores and the higher educational degree in nursing, years of experience as an RN, other certifications and membership in professional organizations. Membership in professional organizations and years of experience as an RN were found to be the most significant predictors of total scores of professionalism. The findings of this study may support the fact that nurses with increased years of experience in nursing practice, higher educational degrees, specialty certifications, and memberships in professional organizations may demonstrate increased professionalism in their practice settings [14].

Malizia utilized a cross-sectional research design to determine the impact of the BSN degree on professional socialization of Returning RNs (RRNs) from three academic sites in Western New York. The findings of this study revealed that RRNs from the entering and graduating class and Generic BSN graduates demonstrated higher level of professional autonomy while AD/Diploma nurses fell in the mid-range level. Graduating RRNs scored significantly higher on the NAS when compared to entering RRNs, AD/Diploma nurses, and Generic BSN nurses. The findings of this study may indicate that an increased level of education is positively associated with higher degree of professionalism [27].

Michiko Tanaka used a cross-sectional survey design to determine the status of the professionalism of Nurses in Japan using a Japanese translated version of the BIPN. The mean

composite score achieved by the 1501 respondents was 6.74. There were significant differences based on educational preparation for the total professionalism. The study revealed that higher education degrees were significantly associated with higher scores of professionalism, with the exception that there was not a significant relationship between diploma and associate degree. Although the doctorate-holding nurses generally had only 0–5 years' experience as a nurse, they score higher on total professionalism than the nurses with over 21 years of experience whose nursing degrees were other than a doctorate. Among the groups divided in accord with years of experience, nurses with over 21 years of experience had the highest mean score of 9.53 for total professionalism [11].

A study conducted in USA by Donna Adams and Barbara K. Miller on 502 Nurse Practitioners using Wheel of Professionalism in Nursing revealed that their mean composite score was 16.7, making their levels of professionalism the highest of any group tested with the Professionalism in Nursing Inventory. For the nurse practitioners, highest category scores were obtained in competence, education, and the use of theories. The lowest category scores were publication and research [26].

The latest research using the BIPN was in Turkey; 531 nurses working in university, state and private hospitals scored 7.16 (SD = 3.48). In that study, nurses with a baccalaureate degree or higher comprised 79.5% of the respondents revealing that low level of educational preparation is related to the low mean total scores of nursing professionalism [28].

Manojlovich and Ketefian in 2001 were interested in whether nurses' attitudes toward professionalism were influenced by a personal sense of accomplishment or the organizational culture in hospital settings. In a study of 424 RNs, organizational culture predicted over 16 percent of the variance in nursing professionalism specifically strength of organizational culture was the only predictor of nursing professionalism whereas personal attributes, such as accomplishment, had very little impact on professionalism scores. These results revealed that nursing professionalism is influenced either positively or negatively by the culture of the work setting; therefore, it is important for employers to foster professionalism to enhance job satisfaction, commitment, retention of nurses, and improved clinical outcomes for patients [18].

Godwin et al assessed the levels of professionalism and examined factors associated with professionalism among Korean American registered nurses (RNs) used Hall's Professionalism Inventory (HPI) scale. Current position in nursing, current employment status, work setting, total years of nursing experience, total years of nursing experience in the United States, location of final degree attainment, and duration of nursing education in the United States were associated with the level of professionalism among Korean American RNs [16].

An exploratory study done by Makeda in 2010 on degree of professionalism among practicing Registered Nurses in South Texas, specifically their attitudes toward conformance with professional behaviors based upon Hall's Professionalism Scale analyzes (N= 244) samples. The study revealed that Nurse Respondents reported a moderate level of professionalism however; baccalaureate degree nurses demonstrated higher mean professionalism scores in all six attitudinal dimensions. The results also suggest that basic nursing education, as measured by the degree of educational attainment is not a strong predictor of professionalism of nurses [10].

Öznur Kavaklı conducted descriptive study design in 2009 on 61 nurses who were working at a university hospital in Ankara with the aim of determining the professional behaviors of intensive care nurses using BIPN. The study revealed that intensive care nurse took the lowest BIPN scores from membership to professional organizations, autonomy and writing scientific article and the highest scores from research, and competency and continuing education. All of the nurses have had high BIPN scores from research, and competency and continuing education, and nurses who have been working in the intensive care less than 5 years have had higher BIPN scores. The managers of intensive care units are suggested to inform the intensive care nurses about professional behaviors and their importance, and encourage them in attending scientific activities and education programs and in membership to professional organizations [29].

Professional identity is the professional self or self-concept of nursing that represents how nurses perceive the nursing profession or the values and beliefs that guide how nurses think, act and interact with patients [30] and it is the most important process of professional socialization [31].

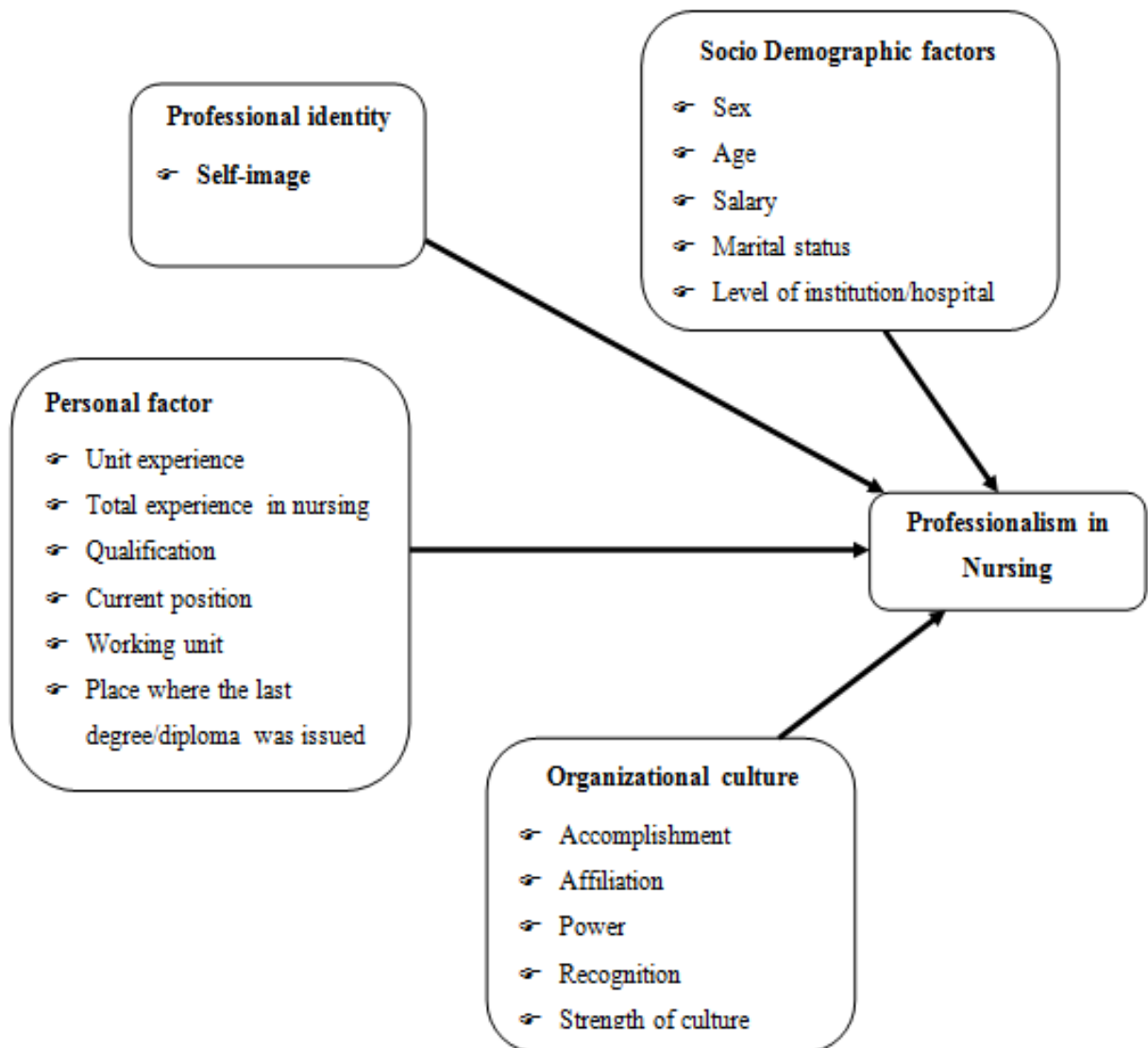
A positive professional self-image is a reflection of the professional identity, and is regards as a prerequisite for nurse to achieve in work field [32]. Therefore, positive professional self-image is

a key of for nurse to develop their professional identity which promotes development of professionalism [31].

A cross sectional study design conducted by Atsede Fantahun used RNAO BPG for determining the level and factors influencing professionalism among Nurses working in Mekelle public hospitals with a sample of 210 clinical nurses. The study revealed that the mean scores for the attributes Knowledge (25.06), ethics (25.0), and Advocacy (16.8) was highest, while it was lowest for the attributes autonomy (11.98) and innovation and visionary (11.75) were lowest. The attitudes of respondents on professionalism was at high, moderate, low and very low level; 12.9 % ( n = 27), 41.9% ( n = 88), 31.9% ( n = 67), 13.3% ( n = 28), respectively. It also revealed that work settings, working experiences, being a member of professional organizations and educational qualification was related with level of professionalism. From her qualitative findings on FGD, the major factors affecting professionalism were workload, lack of vision, lack of support and focus to the profession by government, poor organization of the Ethiopian Nursing Association, lack of life insurance as well as the Health professionals and society's views of the profession, salary dissatisfaction, low incentives (duty, training), lack of refreshment courses to upgrade knowledge and no clear job description [17].



## 2.1 Conceptual framework



**Figure 1:** Conceptual Framework Developed by the Investigator after Reviewing Different Literatures for Nurses working in Jimma Zone Public Hospitals.

## **2.2 Significance of the study**

There is little empirical research in Ethiopia which demonstrates the role of practicing nurses in maintaining and enhancing nursing professionalism. The lack of evidence which could provide nursing leaders with information regarding if and how practicing nurses maintain and enhance their professionalism upon entering the profession represents a gap in the body of nursing knowledge that requires an in-depth exploration. So it is important to uncover the attitudinal attributes that foster professional status in nurses and incorporate these into nursing education and service.

The outcomes of this assessment would help ENA and FMOH in drafting policies and guiding principles of nursing professionalism in Ethiopia as well as for nursing leaders and staff nurses in providing information to confirm their professional status and to examine factors associated with professionalism.

## **CHAPTER THREE: OBJECTIVE**

### **3.1 General objective**

- ☞ To assess professionalism and its predictors among nurses working in Jimma zone public hospitals, south west Ethiopia from March 2 to March 18.

### **3.2 Specific objectives**

- ☞ To determine the level of professionalism among nurses working in Jimma zone public hospitals, south west Ethiopia.
- ☞ To identify the predictors of professionalism among nurses working in Jimma zone public hospitals, south west Ethiopia.

## **CHAPTER FOUR: METHOD AND MATERIAL**

### **4.1 Study area and period**

The study was conducted in Jimma Zone, Oromia Regional state from March 2- March 18, 2015. Jimma is the town of Jimma zone which is one of 18 zone of the Oromia Regional State found at 352 KMs from Addis Ababa, the capital city of Ethiopia, in the South western part of the country. Based on the 2007 Census conducted by the CSA, this Zone has a total population of 2,486,155 an increase of 26.76% over the 1994 census, of whom 1,250,527 are men and 1,235,628 women; with an area of 15,568.58 square kilometers [33].

In this zone there are four public hospitals namely, Jimma University specialized hospital (JUSH), Shenen Gibe, Agaro and Limu hospital. The first two are situated at Jimma town, the third one in Agaro town which is 45 km far from Jimma where as the fourth one is in Limu town which is 72 km far from Jimma town. Except JUSH all are district level. JUSH plays a pivotal role in this zone and it is the only teaching and referral hospital in the southwestern part of the country, and provides specialized clinical services to about 15 million people. It has 518 nurses. The numbers of nursing staffs for the district hospitals are Shenen Gibe (32), Agaro (27) and Limu hospital (34).

### **4.2 Study design**

Institution based cross-sectional study design that used both the quantitative and qualitative method of data collection was employed.

### **4.3 Population**

#### **4.3.1 Source population:**

The source population was all Nurses who were working in Jimma zone public hospitals.

#### **4.3.2 Study population:**

The study population was consisting of sampled Nurses who were on active duty in the hospitals that fulfill inclusion criteria.

#### **4.3.3 Study unit: - Individual Nurse**

#### 4.3.4 Inclusion criteria:-

All Nurse who served six month or more in the hospitals at the time of the study.

#### 4.3.5 Exclusion criteria:-

Those nurses who served less than six month were excluded.

### 4.4 Sample size and sampling technique/sampling procedure

#### 4.4.1 Sample size determination

Sample size is determined using single population proportion formula by considering the 54.8% proportion, 95 % confidence level and 0.04 margin of error

$$n = \left( Z_{\frac{\alpha}{2}} \right)^2 \frac{p(1-p)}{d^2} = \frac{3.8416*0.548*0.452}{0.0016} = 594.7$$

Where:-

- ☞ n is the minimum possible sample size
- ☞  $Z_{\alpha/2}$  is standard score value for 95 % confidence level of two sides normal distribution ( $Z=1.96$  for 95% Confidence level)
- ☞ p is the proportion of professionalism in nursing in Mekelle public hospitals which was taken as 54.8% [17].
- ☞ d is margin of error (4%). The margin of error is used as 4% to increase the sample size.

$$\underline{n = 594.7 \approx 595}$$

Since the number of nurses is 611(<10000), finite population correction formula was used as

$$\text{follows: } nf = \frac{n}{1 + \frac{(n)}{N}} = \frac{595}{1 + \frac{(595)}{611}} = 302$$

$$\begin{aligned} \text{Considering 10\% non-response rate} &= 302 * 10\% = 30 \\ nf &= 302 + 30 = \underline{332} \end{aligned}$$

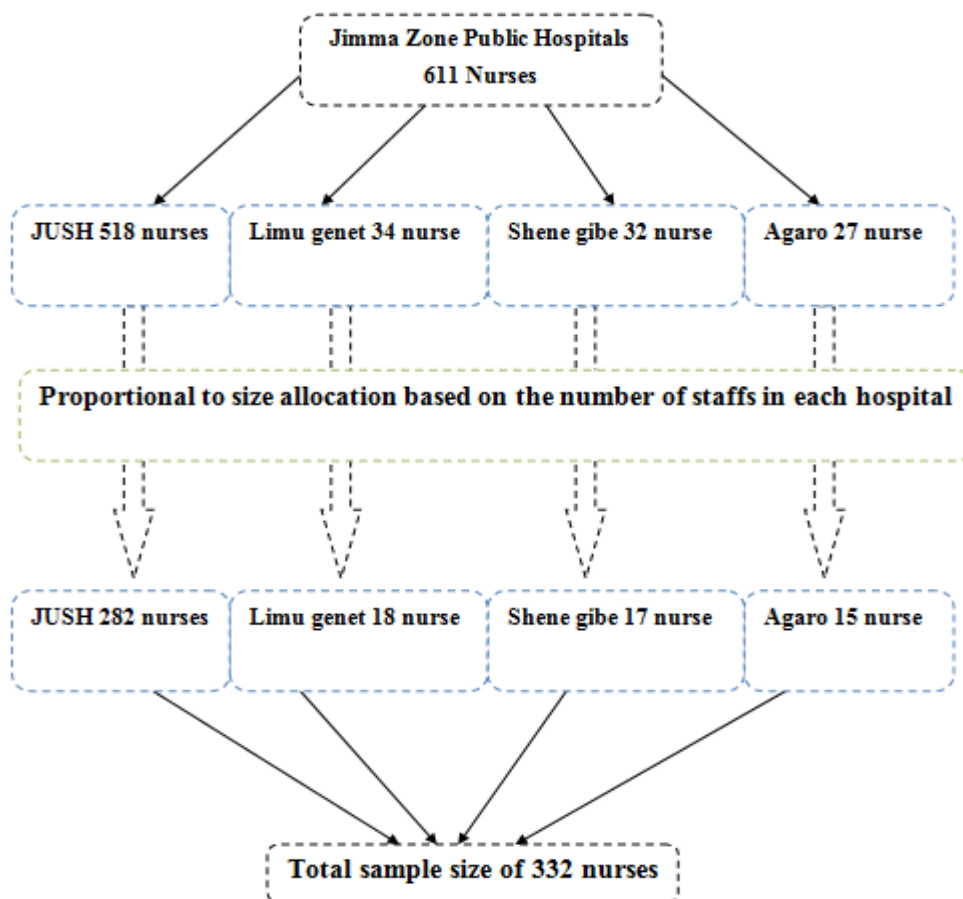
Finally =332 nurses were included in the study.

### For qualitative data

Six interviewees were selected for conducting in-depth interviews in JUSH. The criteria were those nurses with a minimum of BSc holder (with upgrade), and with current or previous experience of head nurse/Matron nurse.

### 4.4.2 Sampling technique

**For quantitative:** - Since there were a difference in number of nursing staffs, proportional to size allocation of sample was done for each hospital giving a result of 282 nurses for JUSH, 17 nurses for Shene gibe, 15 nurses for Agaro and 18 nurses for Limu genet hospital were recruited. The final study participants were selected through systematic sampling technique by calculating  $k(k=2)$  after having a complete list of nurses.



**Figure 2:** Schematic Presentation of Sampling Procedure for Nurses Working In Jimma Zone Public Hospitals South West Ethiopia, 2015.

## **For qualitative**

Purposive sampling technique were used to identify the interviewees for the in- depth interview. The purposes were to explore detail information from those nurses who meet the criteria; since they have a great deal of experience in different positions and educational level; they experience the various factors that affect professionalism which gives strength for the study.

## **4.5 Instrument**

Data were collected from the study participants using pre-tested Likert scale type self-administered English version questionnaires which had 4 parts:

**Part –I:** participants characteristics (includes age, gender, marital status, qualification, salary, position at work, length of service, college, level of hospital).

**Part –II:** It had a 34-item scale used to measure a total score for professionalism and participants were asked to rate each item on a 5-point scale which ranged from strongly disagree (1) to strongly agree (5). The questionnaire was adapted from RNAO guideline which was validated in our country and used by Atsede Fantahun et.al 2012, which contains 5 point likert scale Questions prepared in English with 34-item scale in 8 subscales. In this study one professionalism scale with 6-item emerged following Principal Component Analysis with inter-item reliability of  $\alpha=0.869$ .

**Part –III:** measures organizational cultures which were adopted from Nursing Assessment Survey (NAS) revised and used by Manojlovich, M., & Ketefian, S. (2001) and have 14 items in five subscales which contains five point likert scale ranged from strongly disagree (1) to strongly agree (5)  $\alpha=0.838$ .

**Part –IV:** it had 5-items which measures professional self-image having five items measured with five point liker scales ranged from strongly disagree (1) to strongly agree (5).

Self-image questionnaire were adapted from Dorothee L. Hampton and Gerald M. Hampton, (2000) which contains 5 point likert scale Questions prepared in English with 5-item scale. In this study one scale with 3-item emerged following Principal Component Analysis with inter-item reliability of  $\alpha=0.732$ .

To avoid halo effect, some questions were negatively worded and the scores of the negatively worded items were reversed so that a higher score always corresponds to a more positive value. The questionnaires were pretested on nurses in Bedele Hospital, making 5% of the study population, before the actual data collection. The clarity and understandability of each of the items was tested and minor revisions were required (few vague words were changed). The Cronbach's alpha result for professionalism score, organizational culture and self-image were .928, .838 and .739 respectively.

For in-depth interview open ended questions were adapted from Atsede F. [17] and adjusted contextually to meet the objectives and triangulate the quantitative data.

#### **4.6 Study variables**

##### **Dependent variable:**

- ☞ Professionalism in Nursing

##### **Independent variable:**

###### **Socio Demographic factors:**

- ☞ Gender
- ☞ Age
- ☞ Income
- ☞ Level of Institution/hospital
- ☞ Marital status

###### **Organizational culture**

- ☞ Accomplishment
- ☞ Affiliation
- ☞ Power
- ☞ Recognition
- ☞ Strength of culture

###### **Professional identity**

- ☞ Self- image

###### **Personal factor**

- ☞ Unit experience
- ☞ Total experience in nursing
- ☞ Qualification
- ☞ Current position and Working unit
- ☞ Place where the last degree/diploma was issued



## 4.7 Operational definition and definition of terms

**Professionalism:** attitudes representing levels of identification with and commitment to a nursing profession and measured by generating professionalism scale score using PCA.

**Professionalism score:** Measured by an index generated from a 34-item scale containing statements related to attributes of professionalism and the higher the score shows the higher the professionalism level.

**Professionalism level:** determined by tertiale classification in to low, moderate and high. The cutoff point bases on the professionalism score from the spss.

**Organizational culture:** the underlying values and beliefs of an organization as perceived by its employees [18]. The higher the score on the organizational culture the more the nurses share the organizations value which shows good organizational culture.

**Accomplishment:** subscale of organizational culture that measures the extent to which employees feel the organization focuses on excellence and quality [18].

**Affiliation:** subscale of organizational culture that measures the extent to which employees feel the organization encourages dealing with others in a friendly way.

**Power:** subscale of organizational culture that measures the extent to which employees feel the organization focuses on formality of interactions/degree of difference to authority.

**Recognition:** subscale of organizational culture that measures the extent to which employees feel the organization gives recognition to their work.

**Strength:** subscale of organizational culture that measures the extent to which employees feel they value the organizations value.

**Professional identity:** The professional self or self-concept of nursing that represents how nurses perceive the nursing profession [31] and it's measured by generating self-image scale score from 5-items using PCA. The higher the score shows a positive professional self-image.

**Public Hospitals:** Hospitals which can give comprehensive service to the local community.

## **4.8 Data collection procedures**

### **Quantitative data:**

The data collection was facilitated by five diploma nurse and shift off the respondent were arranged in contact with shift leader of nurses. The data facilitators distributed the self-administered questionnaires to the respondents to fill it and collected on the same day or given up to three days duration when the respondents were busy to fill it. When the respondents were not found on that day, revisit was done. The completeness of the data was checked by the data collectors and principal investigator.

### **Qualitative data:**

In-depth interview were held with the selected interviewees that took from 30-40 minutes for each interview.

## **4.9 Data processing and analysis procedures**

Data were checked for completeness, edited and entered into EpiData version 3.1 and exported to SPSS version 21.00 for analysis. The data were explored using descriptive and frequencies to clean data. Scatter plots, skewness, and kurtosis were examined to determine the shape of the data distribution. On the basis of this information, data were determined to be fairly normally distributed, so no transformations were required but 13 items were found to be an outlier for professionalism score and left out of respective analysis.

To understand the factors that were considered and to derive common factors that reflect level of professionalism score, Principal Component Analysis (PCA) was implemented on the professionalism scale. Prior to performing PCA, the suitability of data for factor analysis was assessed. The results revealed the ratio of cases to variables were 8:1, the presence of many coefficients of 0.4 and above, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.812, and a Barlett's test of Sphericity ( $P < .001$ ). This indicate that the sampling adequacy and the matrix were suitable to perform factor analysis. To assist in the decision concerning the number of factors to retain and create the index, the following criteria were used: 1) Fixed number of factors (only 1) with an Eigen value of one or more for each factor. 2) An item-to-factor loading of 0.4 or greater, 3) A minimum of three items loading on a factor; a factor with fewer than three items was considered weak and unstable. 3) Catell's scree plot test which

recommends retaining all factors above the elbow, or break in the plot, as these factors contribute the most to the explanation of the variance in the professionalism data set.

When the 34 professionalism scale items were entered into principal component analysis one latent/proxy-variables were extracted, six items have contained in the component. (**See total variance explained in Annex-III A and rotated component matrix in Annex-III B**). Factor scores were created and were used in the subsequent analysis. Following that, one-way analysis of variance (ANOVA) and independent sample T-tests were used for comparing professionalism scores across the categories.

Similar procedures were applied for extracting factor score for professional self-image scales leaving only 3-items (KMO=.882, Barlett's test of Sphericity  $P < .001$ ) (Annex III C). For descriptive purpose data driven classification was done on organizational culture and self-image score in to two (two tiles) i.e. good/poor organizational culture and positive/negative self-image.

Simple linear regression was done to see the independent effect of predictors on the dependent variables and multiple linear regression analysis was conducted to identify final predictors of professionalism after controlling other independent variables. Variables  $p \leq 0.25$  in simple linear regression were entered in the final model. Participant's characteristics, individual related factors, self-image and organizational culture were entered independently.

Finally, variables with  $P \leq 0.05$  were assumed to be statistically significant. The assumptions in linear regressions (linearity, normality and multicollinearity) were checked.

## **Qualitative**

The qualitative data were analyzed first by transcribing the recorded data from Amharic in to English verbatim, and then concepts extracted were presented in narratives and triangulated with the quantitative results.

### **4.10 Data quality assurance**

Five percent of the questionnaires were pre- tested in Bedelle Hospital to assess the reliability, clarity, sequence, consistency and understandability and the total time it takes to finish the questionnaire before the actual data collection. Then after, the necessary comments and

feedbacks were incorporated in the final tool. Training was given for the data facilitators on the objectives of the study and the way of collection.

The trustworthiness of the qualitative study was enhanced by avoiding premature closing.

#### **4.11 Ethical consideration**

Ethical clearance and approval to conduct the research was obtained from Jimma University College of health science, Ethical Review Board. Then a letter was secured from the university to respective hospital management to gain support for the study. Prior to administering the questionnaires, the aims and objectives of the study were explained to the participants and personal consent was also being obtained from study participant after explaining the objective of study. They were also told that participation is voluntarily and confidentiality and anonymity will be ensured throughout the execution of the study as participants are not required to disclose personal information on the questionnaire.

#### **4.12 Dissemination plan**

Finally, the finding of study will be disseminated to Jimma University College of health science, Department of Nursing and Midwifery. The study result will also be disseminated to the hospital manager and Nursing service director office through reports and giving awareness on the finding of the study and preparing meeting, seminars and conferences as opportunity permits. Efforts will also be made to publish on scientific journals.

## **CHAPTER FIVE: RESULTS**

### **5.1: Socio Demographic Characteristics of the Study Participants**

Out of the 332 distributed questionnaires 303 were collected from the respondents (13 questionnaires were unfilled, 5 questionnaires were not returned and 11 questionnaires were incomplete) giving the response rate of the study to be 91.26 %.

From the study participants, 148 (51.0%) were male and 257 (88.6%) of the participants were from the specialized hospital. The participants' age ranged from 20 to 54 years with a mean age of  $26.54 \pm 5.06$  years. The majority of the respondents were in the age group 20-29 years, 170 (58.6%) were single and 120 (41.4%) were ever married.

Regarding educational qualification, 180 (62.1%) of nurses were diploma holders and only 3 (1.0%) were masters. More than half (60.7%) of the participants got their last degree/diploma from governmental institutions. They had work experience ranged from 6 month to 30 years with a mean of  $4.56 \pm 5.48$  years and 273 (94.1 %) of them worked <10 years. Their monthly salary ranges from 1516 EBR to 5583 EBR with a mean of  $2499.82 \pm 815.23$  EBR.

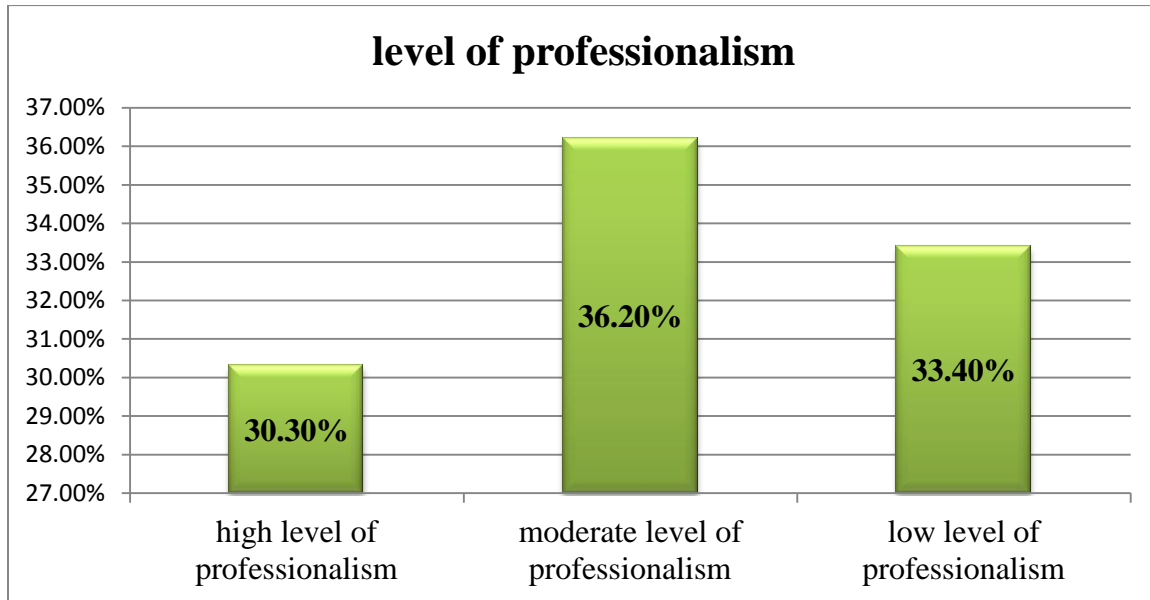
Concerning positions currently hold in the hospital, 260 (89.7%) of were staff nurses and 205 (70.7%) of the participants were working in inpatient departments (Table 1).

**Table 1:** Distribution of Participant Nurses by their Characteristics Working in Jimma Zone Public Hospitals, South West Ethiopia, March 2015 (n=290).

Participant characteristics	No	%	
Sex	Male	148	51.0
	Female	142	49.0
Working Hospital	JUSH	257	88.6
	Shene gibe	14	4.8
	Limu genet	11	3.8
	Agaro	8	2.8
Age category	20-29	258	89.0
	30-39	21	7.2
	>=40	11	3.8
Marital status	Single	170	58.6
	Ever married	120	41.4
Educational Qualification	Diploma Nurse	180	62.1
	BSc Nurse	107	36.9
	Msc	3	1.0
Salary category	<1800	86	29.7
	1800-2350	59	20.3
	>2350	145	50.0
	Staff nurse	260	89.7
	Head nurse	25	8.6
Position	Supervisor nurse	2	.7
	Matron nurse	3	1.0
Experience category	<=10	273	94.1
	11-20	5	1.7
	>20	12	4.1
Working unit category	Inpatient	205	70.7
	Outpatient	85	29.3
Place of last degree/diploma issued	Governmental	176	60.7
	Private	114	39.3

## 5.2 Level of professionalism in Nursing

The respondents mean score of professionalism was  $22.27 \pm 4.35$ , ranging from (12-30). From the created professionalism index (based on tertiale analysis); 97 (33.4%) of the respondents scored low level of professionalism; value ranging from (12-20), 105 (36.2%) of them scored moderate level of professionalism; value ranges from (21-24) and only 88 (30.3%) of the nurses scored high level of professionalism; value ranges from (25-30).



**Figure 3:** Level of Professionalism among Nurses Working In Jimma Zone Public Hospital, South West Ethiopia, 2015.

From the professionalism scale items, “I am recognizing personal capabilities, knowledge base and areas for development” and “I am engaging in critical thinking about ethical issues in clinical and professional practice” had maximum score frequency for agree but “I have been open-minded and having the desire to explore new knowledge” and “I am showing initiative for new ideas and involved through taking action” had a minimum score frequency for strongly disagree (Table 2).

**Table 2:** Description of Nurses Professionalism Scale Items Among Nurses Working In Jimma Zone Public Hospitals, South West Ethiopia, 2015 (N=303).

Professionalism scale items ( $\alpha=0.869$ )	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean +SD
	No	%	No	%	No	%	No	%	No	%	
I have been open-minded and having the desire to explore new knowledge	6	<b>2.1</b>	26	9.0	47	16.2	116	40.0	95	32.8	3.92±1.016
I am asking questions that lead to the generation of knowledge and refinement of existing knowledge	7	2.4	28	9.7	76	26.2	124	<b>42.8</b>	55	19.0	3.66±.972
I am recognizing personal capabilities, knowledge base and areas for development	6	2.1	25	8.6	67	23.1	135	<b>46.6</b>	57	19.7	3.73±.943
I am showing initiative for new ideas and involved through taking action	8	<b>2.8</b>	38	13.1	75	25.9	117	40.3	52	17.9	3.58±1.017
I am collaborating with colleagues to develop and maintain a practice environment that supports nurses and respects their ethical and professional responsibilities	5	1.7	35	12.1	66	22.8	122	42.1	62	21.4	3.69±.994
I am engaging in critical thinking about ethical issues in clinical and professional practice	10	3.4	26	9.0	68	23.4	126	<b>43.4</b>	60	20.7	3.69±1.009

The total variance explained by the professionalism scale which is extracted using PCA was 60.59% (Annex IIIA).

Mean scores were compared between working unit, marital status, college and sex category using independent sample t-test in relation to the “professionalism scale”-i.e. a higher score indicates a higher level of professionalism, and the result showed the single’s mean score 22.97 (SD 4.25) was significantly higher than the mean of ever married nurse’s (mean=21.29, SD=4.30 at  $t= -3.294$  and  $p=0.001$ ).

Mean scores of professionalism has also shown variation against sex category. The male’s mean 23.19 (SD 4.22) was significantly higher than the mean of female’s (mean=21.32, SD= 4.28) at  $t= -3.734$  and  $p<0.001$ . But, there were no significant mean difference seen in working unit and college (Table 3).



**Table 3:** Independent Sample t-test showing the relationship between different categories of nurses and Professionalism mean score among Nurses Working in Jimma Zone Public Hospitals, South West Ethiopia, 2015.

Variables category		Professionalism score			
		N	Mean ± SD	t	P
Marital status	Single	170	22.97±4.25	-3.294	<b>.001</b>
	Ever married	120	21.29±4.30		
Sex category	Male	148	23.19±4.22	-3.734	<b>&lt;.001</b>
	Female	142	21.32±4.28		
College category	Governmental	176	22.54±4.42	1.314	.190
	Private	114	21.86±4.21		

Also mean scores were compared using one way ANOVA among college, age category and salary groups of nurses. Professionalism mean score differed significantly among the three age groups,  $F=3.09$ ,  $p=0.049$ . The LSD Post Hoc test shows that the age group's (20-29) mean score 22.47; SD 4.42 differed significantly from the age group's (30-39) mean score 20.09, SD 3.34 at  $p=0.049$ . But there was no mean difference among salary and college category of nurses (Table 4).

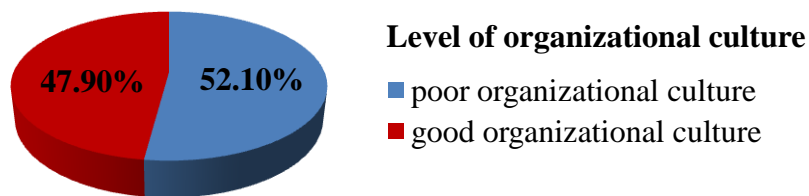
**Table 4:** ANOVA table showing the relationship between different categories of nurses and Professionalism mean score among Nurses Working in Jimma Zone Public Hospitals, South West Ethiopia, 2015.

Variables		N	Mean	Std. Dev	F	P	95% Confidence Interval for Mean	
							Lower Bound	Upper Bound
Age	20-29	258	22.47	4.42	3.09	<b>.049</b>	21.9350	23.0185
	30-39	21	<b>20.09</b>	3.34			18.5725	21.6180
	>=40	11	21.73	3.23			19.5589	23.8957
Salary	<=1800	86	21.98	3.96	.529	.590	21.1400	22.8368
	1800-2350	59	22.05	4.54			20.8670	23.2347
	>=2350	145	22.54	4.49			21.7998	23.2761
College	Government HI	116	22.98	4.36	1.83	.142	22.1806	23.7850
	Private HI	35	21.54	4.77			19.9032	23.1826
	Government HSC	60	21.70	4.46			20.5484	22.8516
	Private HSC	79	22.00	3.96			21.1134	22.8866

Key: - HI: - Higher Institution, HSC: - Health Science College

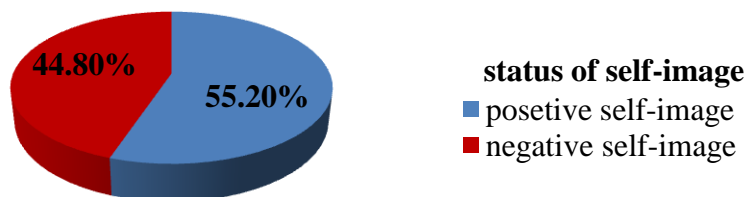
### 5.3. Associations of Professionalism and Independent Factors

In the organizational culture assessment 151 (52.1%) of the respondent fail to share the organizations value (Figure 4). The top three factors described strongly disagree from the organizational culture were “This hospital stresses excellence and doing right “, “this hospital makes me feel like I am an important productive person” and “In this hospital, there is respect for each individual worker”. The top three strongly agree were “Power and influence count a lot here”, “Employees are afraid to make a mistake” and “I regularly receive information about the quality of my work” (Annex III F).



**Figure 4:** Pie Chart Showing Level of Organizational Culture in Jimma Zone Public Hospitals, South West Ethiopia, 2015.

The assessment of self-image showed that 160 (55.2%) have positive self-image (Figure 5). From those items “The dedication of people in Nursing is gratifying” was the top one to be described as a strongly disagree and “If ever an occupation is indispensable, it is Nursing” was described as strongly agree (Annex IIIF).



**Figure 5:** Pie Chart Showing the Status of Self-Image among Nurses Working In Jimma Zone Public Hospitals, South West Ethiopia, 2015.

The mean score of organizational culture was 40.99 (SD= 9.14) and the mean score of self-image was 9.71 (SD= 2.93).

#### **Initial model of predictors of professionalism among Nurses**

Thirteen predictors were entered independently to see their independent effect on level of professionalism and out of these self-image, organizational culture, sex category, experience in nursing profession, marital status and qualification of nurses were found to have a significant association with level of professionalism in nursing (Table 6).

**Table 5:** Factors associated with Professionalism in Nursing in Simple Linear Regression Analysis among Nurses Working in Jimma Zone Public Hospitals, South West Ethiopia, 2015.

Model		Unstandardized		p	95.0%	
		Coefficients			Confidence	
		B	Std. Error		Lower Bound	Upper Bound
Self-image		.232	.050	<b>.000**</b>	.134	.331
Organizational culture		.021	.005	<b>.000**</b>	.010	.031
Sex category	Male	.375	.099	<b>.000**</b>	.179	.570
	Female (Ref)					
College	Private	-.139	.104	<b>.182*</b>	-.343	.066
	Government(Ref)					
Current salary		-.005	.000	<b>.232*</b>	.000	.000
Experience		-.002	.001	<b>.024**</b>	-.003	.000
Age in years		-.018	.010	<b>.069*</b>	-.038	.001
Service year in current unit		-.003	.003	.294	-.009	.003
Hospital	District	.091	.160	.570	-.224	.406
	Specialized(Ref)					
Working unit	Outpatient	.008	.112	.941	-.211	.228
	Inpatient(Ref)					
Marital status	Single	.335	.101	<b>.001**</b>	.135	.534
	Ever married (Ref)					
Position category	with responsibility	.244	.166	<b>.144*</b>	-.083	.571
	without responsibility (Ref)					
Qualification	BSc and above	.292	.103	<b>.005**</b>	.089	.495
	Diploma(Ref)					

*a:Dependent Variable: level of professionalism\*:candidate for multivariable model  $p \leq 0.25$  \*\*: significant association in Bivariable linear regression*

## **Predictors of Professionalism among Nurses**

Variables with p-value  $\leq 0.25$  in Bivariable analysis were entered in the final model. In the model self-image, organizational culture, sex, qualification, position, marital status, age, experience, current salary and college category were entered through enter method. Of these variables; self-image factors, organizational culture, sex, marital status and qualification were found to be significant predictors of level of professionalism among nurses.

Self-image was found to have a positive association with professionalism and it explains slightly over 6% of the variance in nursing professionalism in bivariate analysis. For a unit increase in self-image score professionalism score increases by .207 times at  $p < 0.001$ ; those nurses who have positive self-image have increased level of professionalism than those nurses with negative self-image. This result was supported by the qualitative study. A 54 years female staff nurse with an experience of 33 years stated that “...*being a nurse is all about devotion, commitment and love...this is the main thing that differentiate between your generations and our generations...we choose to become a nurse but you didn't rather nursing chooses you...it is obvious that there are a lot of challenges in nursing but whatever it is we first need to accept and respect nursing...*”.

Organizational culture was also having a positive association with professionalism and it explains slightly over 4% of the variance in nursing professionalism in bivariate analysis. For a unit increase in organizational culture increases professionalism score by .013 times at  $p = .030$ . Those nurses who work in a good organizational culture have increased level of professionalism than those nurses who works in poor organizational culture. This result was also supported by a qualitative finding. A 42 year old female nurse with a position of staff nurse and an experience of 19 years stated that “... *I have seen many managers in my life and they all have a common problem they don't respect nurses...they keep telling us that our work is worth off bed making...*” another nurse also stated “...*we are not a worker here rather we are a laborer...we totally don't have a friendly relationship with our leaders...everything works with punishment*”.

Being male nurse was also positively associated with professionalism. Those male nurse have an increased professionalism score by .238 times than female nurses at  $p=.019$ .

Being single was another variable which was found to have a positive association with professionalism; being single have shown to increase professionalism by .245 times than ever married nurses at  $p=.018$ .

The last variable found to have a positive association was qualification. BSc and above degree holder nurses have an increased professionalism score by .443 times than those nurse with only diploma at  $p=.012$  (Table 7).

This result was also supported by findings from in-depth interview. 38 year old male nurse with a position of a head nurse and experience of 10 years which stated as “...*I think education have a direct effect on professionalism because increasing your level of education means increasing your level of knowledge which in turn increases your confidence and the ability to deal with patients and different challenges that you face in your daily practices...*”.

**Table 6:** Factors associated with Professionalism in Nursing in Multivariable Analysis among Nurses Working in Jimma Zone Public Hospitals, South West Ethiopia, 2015.

Model	Unstandardized			95.0% CI for B	
	Coefficients			Lower	Upper
	B	Std. Error	p	Bound	Bound
Constant	-.667	.328	.043	-1.313	-.021
Organizational culture	.013	.006	<b>.030**</b>	.001	.025
Sex					
	Male	.238	.101	<b>.019**</b>	.436
	Female (Ref)				
Self-image	.207	.057	<b>.000**</b>	.095	.320
Marital status					
	Single	.245	.103	<b>.018**</b>	.448
	Ever married (Ref)				
College	.048	.112	.670	-.173	.268
Level of education					
	BSc and above	.443	.175	<b>.012**</b>	.787
	Diploma (Ref)				
Position	.187	.161	.245	-.129	.504
Current salary in ETB	-.005	.000	.327	.000	.000

*a. Dependent Variable: Professionalism index; For the final model: adjusted R<sup>2</sup> =0.164, Maximum VIF=3.351, Minimum VIF=1.117, \*\*: significant for multivariable linear regression*

## **CHAPTER SIX: - DISCUSSION**

This study was carried out with the aim of determining the level of professionalism and its predictors among nurses. The study findings point to low level of professionalism among the studied nurses which is similar as compared with findings in other studies [11, 36]. Only about one-third 88 (30.3%) of the nurses had a high level of professionalism. A number of factors might explain this low level of professionalism in nursing. These are related to organizational culture, societal factors, personal factors and other socio-demographic factors and they are discussed in the following sections.

The result of the current study revealed low level of professionalism among nurses which was similar with studies done in Japan and Turkey using BIPN tool [11, 36] but it's inconsistent with the findings from Mekelle reporting high professionalism [17]. This discrepancy might be due to sample size in which there was only 210 study subjects and measurement tool they used in which the score ranges from 34-170 but in this study it ranges from 6-30.

It's known that low level of professionalism leads to negative outcomes including increased turnover and attrition and decreased productivity [24]. It can also erode the trust that exists between a profession and the public and loss of trust at this level can influence the profession's status as a reputable profession [3]. In the 21<sup>st</sup> century, where we are striving to deliver a quality of care, improve patient satisfaction, change the public image and as a whole achieving the health related indicators in post MDG's. But, we can't achieve all these goals by having nurses with low level of professionalism which takes the majority of health team in any health care settings.

With the development of professionalism, the roles of nurses will expand and as a result work environment will also change; the quality of nursing application in the hospital will increase, and patient care will be enhanced. So, both the MOH and ENA in addition to academicians may implement different strategies to foster professionalism in nursing.

Level of education is one of the basic criteria for professionalism. Today, many disciplines, including nursing, require a degree at BSN level in order for graduates to be considered as professionals in their field [34] and this is supported by the results of this study showing qualification of nurses was a significant predictor of professionalism. Mean professionalism



scores increase as the qualification level increases. Mean scores were highest for nurses who had completed their BSc and Msc in nursing, their scores being .443 times higher than those of nurses who had only completed diploma program ( $P=.012$ ; Table 7). This finding was consistent with that of a previous study conducted in Turkey, china and Ethiopia and all stated that the nurses with higher educational levels showed a higher level of professionalism [28, 7, and 17].

So it is critical to develop various educational programmes for nurses and to provide encouraging environment for obtaining higher degrees, in order to improve nursing professionalism.

The most substantial finding of this study is that of organizational culture as a significant predictor of nursing professionalism ( $p=.030$ ). The overall  $R^2$  of .044 indicated that slightly over 4% of the variance in nursing professionalism could be explained by organizational culture. But from the five subscales only power was significant predictor of professionalism (see annex IV). The fact that organizational culture affects nursing professionalism has been empirically shown elsewhere. A study conducted in Canada showed that organizational culture were significant and substantial predictor of nursing professionalism explaining 16% of the variance in nursing professionalism [18].

In the present study, there was no significant difference in professionalism score with nurse's experiences which was inconsistent with Wynd's finding revealing significant association between overall professionalism score and years of experience in nursing [14]. The results of a study conducted in Mekelle also showed positive association between years of experience and professionalism score [17]. The discrepancies might be due to small number of nurse with the experience of more than 10 years in the study population. Because of poor labour environment like mandatory night shifts, long working hours and low wages it is challenging for nurses to gain significant experience.

The other findings from this study were that marital status and sex category found to be significant predictors of professionalism. Those nurses who were male scores .238 times more on the overall professionalism score ( $p=.019$ ) and being single nurse increases the professionalism score by .245 times than ever married nurses ( $p=.018$ ). This could be because of the growing male dominance in the nursing profession. The average age of a nursing graduate in Ethiopia is estimated to be in the early 20s and most are unmarried at the time of graduation. As might be

expected, most will marry by the age of 30 years and begin families shortly afterward. As a result, many young female nurses will have a concern to raise their families, although their counterparts, the male nurses, will not.

This study also showed that there was no significant change in the mean professionalism score between the age group 20-29 and those with  $\geq 40$  years but there was a significant decrement in the mean score in the age group of 30-39 ( $p=.049$ ) leaving the younger nurses (20-29) to be the high mean scorer in professionalism scale. This finding was consistent with a study conducted in china showing an age in the thirties was negatively related to professionalism in Chinese nurses [7]. In our country it is common to find a younger nurse with a bachelor's degree in a managerial position, with more experienced, less educated older nurses as subordinates and diminished respect for older colleagues are situation that may contribute to this phenomenon.

Nurses derive their self-concept and professional identity from their public image, work environment, work values, education and traditional social and cultural values [35]. A positive self-image is a reflection of the professional identity, and is regards as a prerequisite for nurse to achieve in work field [32]. Therefore, positive professional self-image is a key for nurses to develop their professional identity which promotes development of professionalism [31].

The findings of this study also demonstrated that self-image was a significant predictor of professionalism score ( $p<.001$ ). The overall  $R^2$  of .066 indicated that slightly over 6% of the variance in nursing professionalism could be explained by self-image. Those nurse who have positive self image scores .207 times more on professionalism score than those with negative self image ( $p<.001$ ). This result clearly showed that the way we think about ourselves, the way we see ourselves and the way we present ourselves to others can boost our professionalism level. So nurses should possess positive self image for the sake of their professionalism.

The finding of this study is limited to hospitals; so that the generalization of the finding may not be for nurses working at health centers in Jimma Zone. There is also limitation of literature on this topic in our country so that comparison of study results was done with other countries where the health institutions setup, health policy and other factors are quite different.

## **CHAPTER SEVEN: - CONCLUSION AND RECOMMENDATION**

### **7.1 Conclusion**

The results of this study indicate that the professionalism levels of nurses are at a low level and factors associated with this were; age, marital status, sex, self-image, organizational culture and qualification of nurses.

The finding of this study adds a small but essential piece to the puzzle of how to maintain professionalism in nursing practice in Ethiopia.

### **7.2 Recommendations**

Matron, human resource personnel and CEO's of respective hospitals should develop various educational programmes for nurses and provide encouraging environments for obtaining higher degrees, in order to improve nursing professionalism.

In addition, it is important for hospital administrators and employers of JUSH, Shenen gibe, Agaro and Limu genet Hospitals to provide nurses with substantial opportunities for professional development such as financial benefits and rearrangement of work shift patterns. Such efforts will foster professionalism.

ENA, leaders in Nursing schools and hospital administrators need to establish a culture that values all contributions will help to maintain feelings of pride and motivation in staff. Recognising that all staff makes an essential contribution to an individual's experience of healthcare can help to build a team ethos and equitable work culture.

Jimma Zone Health Bureau, ENA, JUSH and other hospitals should aim to support and reinforce individuals' commitment to lifelong learning and ensure the provision of ongoing CPD opportunities that focus on issues of conduct as well as knowledge, competence and skill to support their development.

Further studies are also suggested with larger samples and using qualitative methodology to focus on to what extent organizational culture and self-image factors are a source of promoting nursing professionalism. In addition interventional studies are suggested to raise the level of

nursing professionalism. Replication of this study should be carried out with nurses in different regions.

As a general recommendation; these findings indicate that leaders in Nursing Schools, Jimma Zone Health Bureau, Ministry of Health, and ENA should initiate policies and encourage programs for the development of professionalism in nursing.

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## ANNEXES

### Annex-I: Questionnaire

#### **Consent form**

Dear Sir/Madam! This is a study aimed to assess the level and predictors of professionalism among nurses working in Jimma Zone public hospitals. It is evident that the findings of this study *will help both the nursing leaders and staff* nurses to be aware of the level of professionalism and factors affecting it. Your participation in this study will contribute a lot to meet the objectives of the study and your participation is totally with your voluntariness and you can stop your participation in the study at any time.

Be assured that the information you provide would be used for research purposes only and would be treated as confidential.

Are you willing to participate? A. yes B. No

If yes continue, if no thank him/her and go to the next respondent

Principal Investigator

Yonatan Solomon Abdo

*Thank You!*



**Part I: Demographic information for nurses (personal information)**

Instruction: Please circle the number in front of the option you choose& fill in the blank space that best describe you on the right side of the table.

No.	Questions	Coding categories																				
101	Sex	1. Male                      2. Female																				
102	Your Age in years	_____ years																				
103	What is your current marital status?	1. Married                      3. Divorced 2. Single                      4. Widowed																				
104	Length of service /Your working experience in nursing profession(in years)	_____Years																				
105	Length of service in current working unit	_____Years																				
106	Your educational qualification	1. Diploma                      3. MSc 2. BScN                      4. Other(Specify_____)																				
107	Your working unit	<table border="1"> <tr> <td>1. Medical ward</td> <td>11. Chronic illness unit</td> </tr> <tr> <td>2. Surgical ward</td> <td>12. Dental unit</td> </tr> <tr> <td>3. Intensive care unit(ICU)</td> <td>13. OPD</td> </tr> <tr> <td>4. Emergency unit</td> <td>14. Minor OR</td> </tr> <tr> <td>5. MCH</td> <td>15. Neonatal ICU</td> </tr> <tr> <td>6. Operation room</td> <td>16. Others (specify)-----</td> </tr> <tr> <td>7. Psychiatry</td> <td></td> </tr> <tr> <td>8. Pediatrics unit</td> <td></td> </tr> <tr> <td>9. Obstetrics/gynecology unit</td> <td></td> </tr> <tr> <td>10. Ophthalmology unit</td> <td></td> </tr> </table>	1. Medical ward	11. Chronic illness unit	2. Surgical ward	12. Dental unit	3. Intensive care unit(ICU)	13. OPD	4. Emergency unit	14. Minor OR	5. MCH	15. Neonatal ICU	6. Operation room	16. Others (specify)-----	7. Psychiatry		8. Pediatrics unit		9. Obstetrics/gynecology unit		10. Ophthalmology unit	
1. Medical ward	11. Chronic illness unit																					
2. Surgical ward	12. Dental unit																					
3. Intensive care unit(ICU)	13. OPD																					
4. Emergency unit	14. Minor OR																					
5. MCH	15. Neonatal ICU																					
6. Operation room	16. Others (specify)-----																					
7. Psychiatry																						
8. Pediatrics unit																						
9. Obstetrics/gynecology unit																						
10. Ophthalmology unit																						
108	What is your title? Or Position that you presently hold within the hospital	1. Staff nurse                      3. Supervisor nurse 2. Head nurse                      4. Matron nurse																				
119	Your current salary	_____																				
110	Specify the hospital that you are currently working.	1. Jimma University Specialized Hospital      3. Limu Genet Hospital 2. Shenen Gibe Hospital                      4. Agaro Hospital																				
111	Place where the last degree/diploma was issued	1. Government higher institution      3. Gov't health science college 2. Private higher institution              4. Private health science college																				

Part- II: For each of statement below, please rate by circling the number (from 1 to 5) that best describe how well your opinions and attitudes about nursing agree with the item statements.

1. Strongly disagree

2. Disagree

3. Neutral

4. Agree

5. Strongly agree

S.No	Item	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
201.	I have a body of knowledge that is theoretical, practical and clinical	1	2	3	4	5
202.	I have not been able to apply my knowledge into practice	1	2	3	4	5
203.	I am using the theoretical and/or evidence-based rationale for practice	1	2	3	4	5
204.	I am synthesizing information from a variety of sources	1	2	3	4	5
205.	I am using the information or evidence from nursing and other disciplines to inform practice	1	2	3	4	5
206.	I am sharing or communicating knowledge with colleagues, clients, family and others to continually improve care and health outcomes	1	2	3	4	5
207.	I have been open-minded and having the desire to explore new knowledge	1	2	3	4	5
208.	I am asking questions that lead to the generation of knowledge and refinement of existing knowledge	1	2	3	4	5
209.	I have been striving to define patterns of responses from clients, stakeholders and their context	1	2	3	4	5
210.	I have been committed to life-long learning	1	2	3	4	5
211.	I don't understand the meaning of self-regulation and its implications for practice	1	2	3	4	5
212.	I am using legislation, standards of practice and a code of ethics to clarify one's scope of practice	1	2	3	4	5

S.No	Item	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
213.	I have not been committed to work with clients and families to achieve desired outcomes	1	2	3	4	5
214.	I have been actively engaged in advancing the quality of care	1	2	3	4	5
215.	I am recognizing personal capabilities, knowledge base and areas for development	1	2	3	4	5
216.	I am working independently and exercising decision-making within one's appropriate scope of practice	1	2	3	4	5
217.	I am recognizing relational autonomy and the effects of the context and relationships on this autonomy	1	2	3	4	5
218.	I am aware of barriers and constraints that may interfere with one's autonomy and seeking ways to remedy the situation	1	2	3	4	5
219.	I am not understanding the client's perspective	1	2	3	4	5
220.	I am assisting the client with their learning needs	1	2	3	4	5
221.	I have been involved in professional practice initiatives and activities to enhance health care	1	2	3	4	5
222.	I am not knowledgeable about policies that impact on delivery of health care	1	2	3	4	5
223.	I am promoting a culture of innovation to enhance client/family outcomes	1	2	3	4	5
224.	I am showing initiative for new ideas and involved through taking action	1	2	3	4	5
225.	I am influencing the future of nursing, delivery of health care and the health care system	1	2	3	4	5
226.	I am developing collaborative partnerships within a professional context	1	2	3	4	5
227.	I am not acting as a mentor to nurses, nursing students and colleagues to enhance and support professional growth	1	2	3	4	5
228.	I am acknowledging and recognizing interdependence between care providers	1	2	3	4	5
229.	I am knowledgeable about ethical values, concepts and decision-making	1	2	3	4	5
230.	I am being able to identify ethical					

S.No	Item	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
	concerns, issues and dilemmas	1	2	3	4	5
231.	I am not applying knowledge of nursing ethics to make decisions and to act on decisions	1	2	3	4	5
232.	I have been able to collect and use information from various sources for ethical decision-making	1	2	3	4	5
233.	I am collaborating with colleagues to develop and maintain a practice environment that supports nurses and respects their ethical and professional responsibilities	1	2	3	4	5
234.	I am engaging in critical thinking about ethical issues in clinical and professional practice	1	2	3	4	5

Part III: For each of statement below, please rate by circling the number (from 1 to 5) that best describe how well your opinions agree with the item statements.

S.No	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
235	The benefits we Nurses give to society are understated.	1	2	3	4	5
236	It encourages me to see the high level of idealism maintained by people in Nursing.	1	2	3	4	5
237	In Nurses, people believe in their work.	1	2	3	4	5
238	If ever an occupation is indispensable, it is Nursing.	1	2	3	4	5
239	The dedication of people in Nursing is gratifying.	1	2	3	4	5

Part IV: For each of statement below, please rate by circling the number (from 1 to 5) that best describe how well your opinions agree with the item statements

S.No	Item	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
241	This hospital stresses excellence and “ doing right”					
242	Employees are afraid to make a mistake.					
243	Around here we are encouraged to try new things					
244	I do my best work here because my co-workers urge me to do so.					
245	In this hospital, there is respect for each individual worker					
246	Employees here don’t trust one other					
247	Power and influence count a lot here					
248	Competition among different work groups in this hospital is actively encouraged					
249	Employees here receive a lot of attention					
250	This hospital makes me feel like I am an important productive person					
251	I regularly receive information about the quality of my work					
252	Everybody in this hospital knows what it stands for					
253	This hospital is clear about what it expects from me as an employee					
254	Everyone in this hospital knows what is valued most					

**Annex-II: In-depth interview guides questions.**

- ☞ What is nursing professionalism mean to you?
- ☞ Can you tell me the attributes of professionalism?
- ☞ How do you show your professionalism in practice?
- ☞ In your opinion, what are the facilitators and barriers of professionalism in nursing?
- ☞ In what ways are professionalism can be fostered?

## Annex-III: Principal Component Analysis Tables

### Annex-III A: Total Variance Explained for the extracted professionalism scales

#### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.636	60.599	60.599	3.636	60.599	60.599
2	.729	12.154	72.753			
3	.685	11.414	84.167			
4	.446	7.427	91.594			
5	.282	4.707	96.301			
6	.222	3.699	100.000			

Extraction Method: Principal Component Analysis.

#### Annex-III B Component Matrix<sup>a</sup> for professionalism scale items

#### Component Matrix<sup>a</sup>

	Comp
	1
I have been open-minded and having the desire to explore new knowledge.	.826
I am asking questions that lead to the generation of knowledge and refinement of existing knowledge.	.786
I am recognizing personal capabilities, knowledge base and areas for development.	.741
I am showing initiative for new ideas and involved through taking actions.	.729
I am collaborating with colleagues to develop and maintain a practice environment that supports nurses and respects their ethical and professional responsibilities.	.783
I am engaging in critical thinking about ethical issues in clinical and professional practice.	.802

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Annex-IIIC: Total Variance Explained for the Extracted Self-image Factor scale**

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.956	65.205	65.205	1.956	65.205	65.205
2	.617	20.551	85.757			
3	.427	14.243	100.000			

**Annex-IIID: Component Matrix<sup>a</sup> for self-image factor scale items**

**Component Matrix<sup>a</sup>**

	Component
	1
In Nurses, people believe in their work	.853
If ever an occupation is indispensable, it is Nursing	.763
The dedication of people in Nursing is gratifying	.804

a 1 components extracted.

Extraction Method: Principal Component Analysis.

**Annex-IIIE: KMO and Bartlett's Test of Self-image Factor scales**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.661
Approx. Chi-Square	198.986
Bartlett's Test of Sphericity df	3
Sig.	.000

### Annex-III F: Scores of Predictors Items

Organizational culture scale items ( $\alpha=0.831$ )	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean +SD
	No	%	No	%	No	%	No	%	No	%	
This hospital stresses excellence and “doing right”	<b>70</b>	24.1	75	25.9	67	23.1	61	21.0	17	5.9	2.59±1.226
Employees are afraid to make a mistake.	30	10.3	54	18.6	85	29.3	91	31.4	<b>30</b>	10.3	2.87±1.147
Around here we are encouraged to try new things	34	11.7	66	22.8	79	27.2	90	31.0	21	7.2	2.99±1.141
I do my best work here because my co-workers urge me to do so.	23	7.9	62	21.4	80	27.6	105	36.2	20	6.9	3.13±1.075
In this hospital, there is respect for each individual worker	<b>61</b>	21.0	83	28.6	52	17.9	68	23.4	26	9.0	2.71±1.281
Employees here don't trust one other	39	13.4	62	21.4	84	29.0	89	30.7	16	5.5	3.07±1.131
Power and influence count a lot here	26	9.0	48	16.6	103	35.5	80	27.6	<b>33</b>	11.4	3.16±1.111
Competition among different work groups in this hospital is actively encouraged	39	13.4	69	23.8	85	29.3	79	27.2	18	6.2	2.89±1.135
Employees here receive a lot of attention	42	14.5	70	24.1	70	24.1	88	30.3	20	6.9	2.91±1.182
This hospital makes me feel like I am an important productive person	<b>64</b>	22.1	70	24.1	74	25.5	59	20.3	23	7.9	2.68±1.244
I regularly receive information about the quality of my work	35	12.1	81	27.9	70	24.1	76	26.2	<b>28</b>	9.7	2.93±1.188
Everybody in this hospital knows what it stands for	25	8.6	67	23.1	84	29.0	90	31.0	24	8.3	3.07±1.103
This hospital is clear about what it expects from me as an employee	35	12.1	62	21.4	73	25.2	93	32.1	27	9.3	3.05±1.180
Everyone in this hospital knows what is valued most	29	10.0	76	26.2	88	30.3	75	25.9	22	7.6	2.95±1.107



Self-image factor scale items ( $\alpha=0.732$ )	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean +SD
	No	%	No	%	No	%	No	%	No	%	
In Nurses, people believe in their work.	34	11.7	50	17.2	58	20.0	116	40.0	32	11.0	3.21±1.201
If ever an occupation is indispensable, it is Nursing.	19	6.6	42	14.5	69	23.8	94	32.4	<b>66</b>	22.8	3.50±1.180
The dedication of people in Nursing is gratifying.	<b>44</b>	15.2	67	23.1	62	21.4	82	28.3	35	12.1	2.99±1.268

**Annex-IV: Regression analysis of subscales of Organizational culture with Professionalism scale among Nurses Working in Jimma Zone Public Hospitals, South West Ethiopia, 2015**

Variable	Unstandardized Coefficients		Standardized Coefficients	P	95.0% Confidence Interval for B	
	B	Std. Error	Beta		Lower Bound	Upper Bound
Organizational culture						
Accomplishment	.021	.030	-.051	.481	-.081	.038
Affiliation	.031	.031	.080	.310	-.029	.091
Power	.081	.035	.150	<b>.021**</b>	.012	.149
Recognition	.034	.026	.118	.189	-.017	.085
Strength of culture	.001	.024	.004	.960	-.046	.049

$R^2 = .049$ , Minimum VIF= 1.279, Maximum VIF= 2.425

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name: YONATAN SOLOMON ABDO

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

Name of the institution: JIMMA UNIVERSITY

Date of submission: \_\_\_\_\_

This thesis has been submitted for examination with my approval as University advisor

Name and Signature of the first advisor

PROFESSOR TEFERA BELACHEW (MD, MSc, DLSHTM, PhD)

\_\_\_\_\_

Name and Signature of the second advisor

JEMAL BEKER (BSc N, MSc)

\_\_\_\_\_