

Job Performance and Associated Factors Among Health Workers Working in Public Hospitals of West Hararghe Zone, Oromia Region, Eastern Ethiopia

Yassin Abraham Ousman¹, Biniam Worku Hailu^{2,*}

¹Planning, Budget, Monitoring and Evaluation Case Team, West Hareregh Zonal Health Office, Oromia, Ethiopia

²Human Resource Administrations and Developments Directorate, Oromia Regional Health Bureau, Addis Ababa, Ethiopia

Email address:

biniamworku50@gmail.com (Biniam Worku Hailu)

*Corresponding author

To cite this article:

Yassin Abraham Ousman, Biniam Worku Hailu. (2023). Job Performance and Associated Factors Among Health Workers Working in Public Hospitals of West Hararghe Zone, Oromia Region, Eastern Ethiopia. *International Journal of Science, Technology and Society*, 11(6), 245-254. <https://doi.org/10.11648/j.ijsts.20231106.16>

Received: October 19, 2023; **Accepted:** November 20, 2023; **Published:** December 26, 2023

Abstract: Background: The success of any organization always depends on the participation and job performance of their employees. Health workers job performance level are cornerstone for better productivity of any health care organizations. Less performance of health workers reduces public hospital productivity and a reason for poor hospitalized patient health outcome. However, little was understood about job performance and associated factors in low-income countries like Ethiopia including the study area. Objectives: To assess the level of job performance and associated factors among health workers working in public hospitals of West Hararghe zone, Oromia Region, East Ethiopia. Methods: A health facility based cross-sectional study design was conducted by using quantitative methods among 422 health workers. The study was conducted from August 27 to September 17, 2018 on public hospitals in West Hararghe zones [Chiro, Galemso and Asebot Hospitals]. Simple random sampling technique was used to select study participants. Data were collected from participants by using self-administered questionnaire. The data were entered in to Epidata version 3.1 and then exported to SPSS version 23 for analysis. Descriptive statistics such as frequency, percentages, mean and standard deviation were used to summarize the data. In bivariate analysis variables which had p-value $p < 0.25$ were taken to multivariate regression model. Multivariate logistic regression was computed to identify predictor variables associated with level of job performance and variables with $p \leq 0.05$ were considered statistically significant with 95% CI. Result: A total of 381 study participants were involved in the study with response rate of 90%. Among the respondents, 206 [54.3%] were males. In professional types 256 [67.3%] were health professionals. The most predicting variable of health workers job performance: sex [AOR=1.896 [1.130, 3.180]], marital status [AOR=1.910 [1.11, 3.27]], working hours [AOR=2.910 [1.653, 5.123]], working condition [AOR= 2.164 [1.128, 3.844]] and job satisfaction [AOR= 2.480 [1.374, 4.476]]. Conclusion: The findings our study has indicated that health workers in West Hararghe zone in public hospitals have poor level of job performance. The strong predicting variable such as sex, marital status, working hours, working condition and job satisfaction were significantly associated with job performance. Regional Health office, Zonal health office and hospitals should give more attention on job satisfaction and working condition to improve health worker's job performance.

Keywords: Job Performance, Health Workers, Working Condition, Working Environment, Job Satisfaction

1. Introduction

1.1. Background of the Study

A health system is the sum total of all the organizations,

institutions and resources whose primary purpose is to improve health. The workforce is among the most important inputs to any health system and has a strong impact on the performance of health facilities. The quality of health services, their efficacy, efficiency, accessibility, and viability

depend on the performance of health workers those who delivering these services [1]. Employers should provide working conditions which support the performance of employees [2].

Job performance is the general attitude that people have about their jobs. An individual output and performance are highly dependent on the surroundings physical environment of the institution. Human resource is the key factor in building of any organization. It is imperative to deploy the right person on right place on right time for service delivery organization on effective performance [4].

Job performance, its evaluation and risk factors is expressed as one of the organizational issues of our time to increase or decrease in job performance and organizational commitment and is the key to success and increasing the efficiency of the organization. Performance of healthcare organizations depends on the knowledge, skills and motivation of individual employees. Employers should provide working conditions which support the performance of employees since the quality, efficiency and equity of services depend on the availability of sufficient and skilled providers, competent health professionals when and where they are needed [3].

Study done in Jordan on nurses career commitment has been found that nurses' job performance is positively influenced by holistic management, clinical skills, social support, job satisfaction, recognition of achievement, education and professional communication and negatively influenced by old age, understaffing and heavy workload, job stress, leadership difficulties and lack of skills needed to perform the job [5]. Level of education is negatively correlated with job performance, indicating that the higher the level of education, the lower job performance of nurses [6]. The relationship between job satisfaction and performance was found to be even higher for complex [professional] jobs than for less complex jobs [7].

Working environment such as absenteeism, physical and social environment, learning opportunity, health and safe environment, communication, supervision, staff relation, hospital location, and family supports affect the job performances of health workers. The current cost burden of unhealthy and unsafe workplaces for organizations and society includes reduced worker commitment and job satisfaction, absenteeism and lost productivity [8].

Working condition such as commitment, workload, supervision, management and others also affect job performances of health workers in health institution. Job performances have positively correlated with organizational commitment [2]. Other studies indicated that an increase in the workload resulted in increased absenteeism and a decrease in quality of care [2]. Job performance is found to be affected with satisfaction with several aspects of work conditions, including working hours, physical surroundings and access to supplies and equipment as a significant predictor of job performance [9].

Job satisfaction of employee is the fulfillment, gratification, and enjoyment that come from work. It is not just the money

or the fringe benefits, but the feelings employees receive from the work itself. The most used research definition of job satisfaction is by Locke who defined it as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences [7].

Motivation can be seen as an inner force that drives individuals to attain personal and organization goals. Motivating factors are those aspects of the job that make people want to perform, and provide people with satisfaction, for example, achievement in work, recognition, and promotion opportunities [7].

Motivating factors such as achievement, recognition, rewards, the work itself, responsibility, advancement and growth or promotion and hygiene factors such as supervision, working conditions, interpersonal relations, pay and security, organization policy and administration affect job performances of health workers in health institution. Job dissatisfied employee is most likely to show poor performance at work which indirectly affects the productivity of the organization [10].

1.2. The Statements of Problems

Job performance is influenced by many factors. The main factors that influence ability of performing employees from their job among employees in public health institution or organizations are the abilities, motivational factors, organizational supports and commitment of employees. The management is facing difficulty in managing the employees especially when the employees' attitude and behavior towards their work is not at satisfactory level [11].

The consequences are believed to cause poor work performance and delivering good services in health services are also affected. Health workers in public facilities are often absent during working hours, or they simply "sit around" while patients are waiting, and these complaints are acknowledged by health workers. How they feel about the work and the results from it, have a direct impact on the organization's performance and ultimately its stability [1].

Employers are supposed to ensure performance of a high standard by employees, or put measures in place to detect and rectify poor performance of first-line health care workers who are in contact with clients, patients and the community. Improving the productivity and performance of health care workers in order to enhance efficiency in health interventions, is a major challenge for African countries [2]. All most all countries face one or more of the following challenges: shortage of health workers, inadequate skills and competencies, skill mix imbalance, mal distribution, poor working environment and weak knowledge base to plan and manage the health workforce [12].

Poor performance is a result of health staff not being sufficient in numbers, or not providing care according to standards, and not being responsive to the needs of the community and patients. These are a problem if health managers do not know what the health workers do, how they perform their daily tasks they cannot make changes to better health improvement [11]. Poor performance of health service

providers leads to inaccessibility of care and inappropriate care, which thus contribute to reduced health outcomes as people are not using services or are mistreated and harm the life and health of whole communities [12].

1.3. Significance of the Study

After a review of the literature specific to health workers job performance we just realize the importance of the issue in our country and more than that many researches were undertaken by developed countries but little were found in developing countries specifically Ethiopia. In Ethiopia very few studies were done, but until there is no study done on this topic in Eastern Ethiopia and West Hararghe zone. This study is intended to assess level of job performance and associated factors among all health workers both health professional and non-health professional of public hospitals in West Hararghe zone. On the other hand, the study used as a baseline for future researchers who have interested into a similar area of study. The finding of the study used to provides valuable and up to date information that was important for Hospital Administrators, federal government and policy makers.

2. Objectives

2.1. General Objective

To assess job performance and associated factors among health workers in public hospitals of West Hararghe zone in September to October 2018.

2.2. Specific Objectives

To measures level of job performance among health workers in public hospitals of West Hararghe zone

To identify factors associated with job performance among health workers in public hospitals of West Hararghe zone.

3. Methods and Materials

3.1. Study Area and Period

The study was conducted in West Hararghe Zones on health workers in public hospitals [Chiro, Galemso and Asebot Hospitals]. West Hararghe zone is one of 20 zonal administrations in Oromia regional state located at 326km East of Addis Ababa on the way to Harar and Dire Dawa. Total populations of the zone are 2,582,209 with male 1,318,928 and females 1,263,281. The zone shares boundaries with East Shawa and Afar Regional state in North, East Hararghe in east, Arsi in west, Bale in south directions. West Hararghe zone is divided into 14 Woredas and 2 town administrations with Chiro as its capital. There are three public hospitals: Chiro, Galemso and Asebot hospitals.

Currently a number of health workers on job are Chiro hospitals have 275 health workers, Galemso hospitals have 256 health workers and Asebot have 139 health workers. Hospitals in the zones have total of 670 health workers

according to sources from their human resources records. Health workers have two categories as health professionals 489 in numbers and supportive staffs 181 in numbers were eligible for this study. Both Chiro and Galemso hospitals are General hospitals and Asebot hospital is a primary hospital. The data study was conducted from August 27, 2018 to September 17, 2018.

3.2. Study Design

A Facility based cross-sectional study design was used.

3.3. Population

3.3.1. Source Population

The source populations for the study were all health workers employed in public hospitals of West Hararghe zones.

3.3.2. Study Population

The study populations were all randomly selected health workers in three hospitals [Chiro, Galemso and Asebot] in west Hararghe zones.

3.3.3. Inclusion and Exclusion Criteria

Health workers those permanently employed in three public hospitals and had greater than or equal 6 months' work experience were included. Health workers who were on the leave and long-term training during the data collection were excluded.

3.4. Sample Size and Sampling Technique

3.4.1. Sample Size Determination

The sample size calculation is based on a *single population proportion* formula. $N = [Z^2/2pq]/d^2$

Where n = number of sample size

p=proportion of health workers job performance, since there is lack of enough information of study done in this area on proportion of health workers toward their job performances we took 50%, 0.5=p

z= Z-score at 95% confidence interval = 1.96

d= Acceptable margin of error = 5% the formula for calculating the sample size [n] was:

$$n = \frac{[Z\alpha/2]^2 p [1-P]}{d^2}$$

$$n = \frac{[1.96]^2 0.5[1-0.5]}{[0.05]^2} \text{Single population proportion formula}$$

$$n = 384$$

“N” is the total number of health workers present in three public hospitals which means potential source population [N=670] during the study period „n’ is the initial sample size without correction formula [if used the selected sample size were become lower and cannot get enough representative sample size] this could be taken as sample size by adding 10%of non-response rate [384*10%] +384 the final total sample size were reached 422.

3.4.2. Sampling Technique

Simple random sampling method was used to select the study participants from each hospital. The total sample size

required for the study were allocated to each of the three hospitals selected as proportional to the size method based on the number of health workers exist in each hospital [Figure 1].

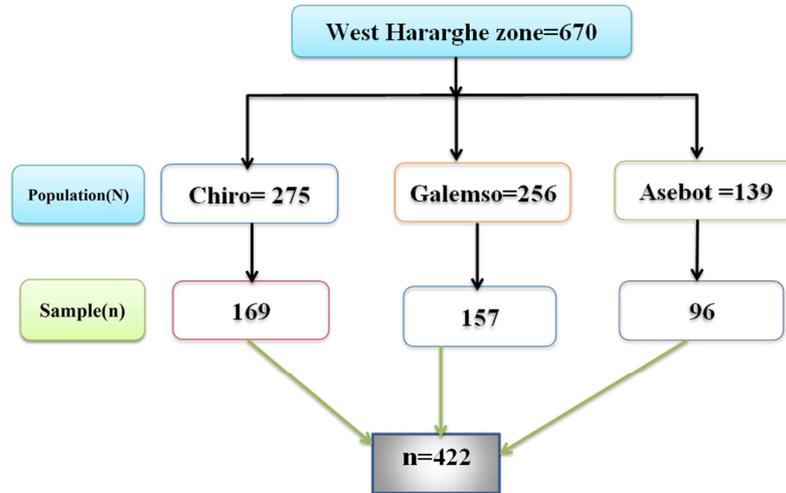


Figure 1. Sampling procedures of health workers from public hospital of West Hararghe zone in 2018.

3.5. Data Collection Tools and Procedures

3.5.1. Data Collection Tools

Data were collected by using self-administered questionnaire which adopted from reviewing relevant literatures from websites, books and articles [27-30].

Job performance were measured by nine items using Likert scale with five responses [1=very poor, 2= poor, 3=good, 4= very good, and 5 = excellent]. Working environments consists eight items, working condition consists eight items and job satisfaction consists 11 items and all variable were measured by using Likert scale with five responses [1=strongly disagree, 2=disagree, 3=unknown, 4=agree, 5=strongly agree]. The questionnaires were prepared in English and translated to the local language Afaan Oromo and back to English by two independent persons from different place to check for consistency. These two independent individuals had educational background of masters in English language and had experiences of teaching for long period of time.

3.5.2. Data Collection Method

The supervisor and data collectors were trained for three days intensively on the study objectives, the method of data collection, and the tools for data collection. Supervisor also took orientation on the way of successful data collection was achieved. Due to the nature of shift work in a hospital setting [off time duty] data were collected both during day and night. Completed questionnaires were checked every day by principal investigator

3.5.3. Personnel

One health officer as supervisor and three nurses as data collectors were recruited from Tullo woreda Health office which is different from study area.

3.6. Variables for the Study

3.6.1. Dependent Variables

Job performances

3.6.2. Independent Variables

1. Socio- demographic factors
2. Working environments
3. Working condition
4. Job satisfaction

3.7. Operational Definitions

Job performances defined as the effectiveness of the person in carrying out his or her roles and responsibilities related to direct patient care. Job performance is measurement of health workers performance in terms of efficiency, effectiveness, productivity and timeliness. Effectiveness is indicates the degree to which the process output [work product] conforms to requirements. Efficiency indicates the degree to which the process produces the required output at a minimum resource cost. The timeliness aspect measures on whether a unit of work was done correctly and on time. The productivity checks on the value added by the process divided by the value of the labor and capital consume. Job performance was measured by nine items using Likert scale with five responses [1=very poor, 2= poor, 3=good, 4= very good, and 5 = excellent]. The scores were averaged so as to show each participants job performance level ranging from 9 to 45.

Poor job performance when respondent average score of job performance was less than computed overall mean value of job performance [Mean<3.56].

Good job performance when respondent average score of job performance was greater than or equal to computed overall mean value of job performance [Mean>=3.56].

Working environment is a characteristics of the environment in which a person is expected to work. The Working environment includes physical, geographical location and social environment, learning opportunity, staff relation and benefits. It defined as environment that attracts individuals into the health professions, encourages them to remain in the health workforce and enables them to perform effectively with availability of essential materials and supplies [30]. Working environment consist eight items, measured by using Likert scale with five responses. The scores were averaged so as to show each participant's working environment situation ranging from 8 to 40 [1= strongly disagree, 2= disagree, 3= unknown, 4= agree, 5= strongly agree].

Bad environment when respondent with average score of working environment was less than computed overall mean value of working environment [Mean<3.07].

Good environment when respondent average score of working environment was greater than or equal to computed overall mean value working environment [Mean>=3.07].

Working condition range from working time [hours of work, rest periods, and work schedules] to remuneration, as well as the physical conditions and mental demands that exist in the workplace [28]. It also defined as commitment, workloads, working hours and others that affect job performances of health workers in health institution. Working condition consists eight items which measured by using Likert scale with five responses [1=strongly disagree, 2=disagree, 3=unknown, 4=agree, 5=strongly agree]. The scores were averaged so as to show each participant's working environment situation ranging from 8 to 40.

Poor working condition when respondent with average score of working condition was less than computed overall mean value of working condition [Mean<3.36].

Good working condition when respondent average score of working condition was greater than or equal to computed overall mean value working condition [Mean>=3.36].

Job satisfaction was measured by using the short form adopted from Minnesota Satisfaction Questionnaire [MSQ, 31, 32]. This instruments utilize 11 items and respondents rate their own job satisfaction level using a Likert scale with five responses [1=strongly disagree, 2=disagree, 3=unknown, 4=agree, 5=strongly agree]. The scores were averaged so as to show each participant's satisfaction level ranging from 11 to 55. Respondents with average score of less than mean value were classified as dissatisfied, and those with average score of mean value and above were considered as satisfied.

Dissatisfied when respondent with average score of job satisfaction was less than computed overall mean value of job satisfaction [Mean<3.19].

Satisfied when respondent average score of job satisfaction was greater than or equal to computed overall mean value job satisfaction [Mean>=3.19].

Health workers' refers to all employees of the hospital.

3.8. Data Processing and Analysis

Data were first checked manually for completeness, in consistencies and then entered through double entry into

Epidata version 3.1 and finally exported to SPSS version 23 for analysis. Descriptive statistics such as frequency, percentages, mean and standard deviation were used to summarize the data and results were presented by using frequency tables and graphs.

Binary logistic regression was computed to see associated between each independent variables and level of job performance using crude odd ratio [COR] 95% C. I, variables which had p-value $p < 0.25$ in bivariate analysis were taken to multivariate analysis in final models.

Multivariate logistic regression was computed to identify predictor variables associated with level of job performance using adjusted odds ratio [AOR] with 95% C. I, variables in the multivariable analysis with $p \leq 0.05$ were considered statistically significant.

3.9. Data Quality Management

For ensuring the data quality before starting data collection, the questionnaires were pretested at Hirna primary Hospital by taking 5% of sample size. Then after, the necessary comments and feedbacks were incorporated, slight modification was done in the final tool. Training was given for supervisor and data collectors on the objectives of the study, contents of the questionnaires and process of data collection. Close supervision was carried out on daily basis by the principal investigator and the questionnaires were checked during the data collection process to ensure completeness and consistency of the information.

The reliability of questionnaires for each variable was measured using the Cronbach's coefficient alpha. The results of calculated Cronbach's coefficient alpha were obtained from job performance [0.836], working environment [0.855], working condition [0.737] and job satisfaction [0.816]. All variable had Cronbach's alpha value of 0.70 and above indicate that the items are reliable and considered good [20].

3.10. Ethical Considerations

Ethical clearance was obtained from Jimma University Institutional Research and Ethical Committee and then official letter was obtained from Jimma University, Faculty of Public Health, Department of Health Economics, Management and Policy to West Hararghe Zone of Health Office. Zonal health office were wrote letter to all selected hospitals in zone. Data collectors were delivered to letter from zone and reach at employed hospitals and communicate with managers or responsible body of the hospitals. Finally data collectors were got permission and started contacting with each participant.

This study was conducted in accordance with the Declaration of Helsinki. Prior to administering the questionnaires, the aims and objectives of the study were explained to the participants and verbal consent was obtained from study participant after explaining the objective of study. They were also told that participation was voluntarily and confidentiality and anonymity were ensured throughout the execution of the study as participants were not required to disclose personal information on the questionnaire.

3.11. Dissemination Plan

The findings will be presented to the Jimma University Institute of Health, Department of Health Economics, Management and Policy. The findings will be communicated to the human resource managers working on West Hararghe zones public hospitals.

4. Results

4.1. Background Characteristics of Study Participants

A total of 422 questionnaires were distributed to health

workers in selected public hospitals and 381 were returned. The overall response rate was 90%. There were 41 [10%] non-respondents due to refusal after receive, forgot to return, receive questionnaires but went to other place for holydays and other reason made slight high. Among the study participants, 206 [54.3%] were males. In professional types 256 [67.3%] were health professionals. Majority of the respondents 214 [56.5%] were married, 145 [38.4%] were single and 21 [5.1%] were separated. A majority 301 [82.9%] were below 35 years old. As to educational level, majority of respondents 241 [64.0%] had degree and above [Table 1]

Table 1. Socio-demographic characteristics of health workers, West Hararghe Zone in public hospitals August to September 2018.

Variables	Variables	Frequency [n=381]	Percentage [%]
Sex	Male	206	54.3
	Female	175	45.7
Age of respondents	<35 years	301	82.9
	36-45 years	57	14.3
	>46 years	13	2.8
Marital status	Single	145	38.4
	Separated	21	5.1
	Married	214	56.5
Educational level	Diploma	139	36.6
	Degree and above	241	63.4
Professional type	Health professional	256	67.7
	Supportive staffs	124	32.3
Work experience	<10 years	318	85.8
	11-21 years	44	10.8
	>22 years	18	3.4
Working hours	Less than 8 hours	111	29.2
	More than or equal 8 hours	269	70.8
Income in ETB	Less than 4000	185	48.6
	More than or equal 4000ETB	195	51.4

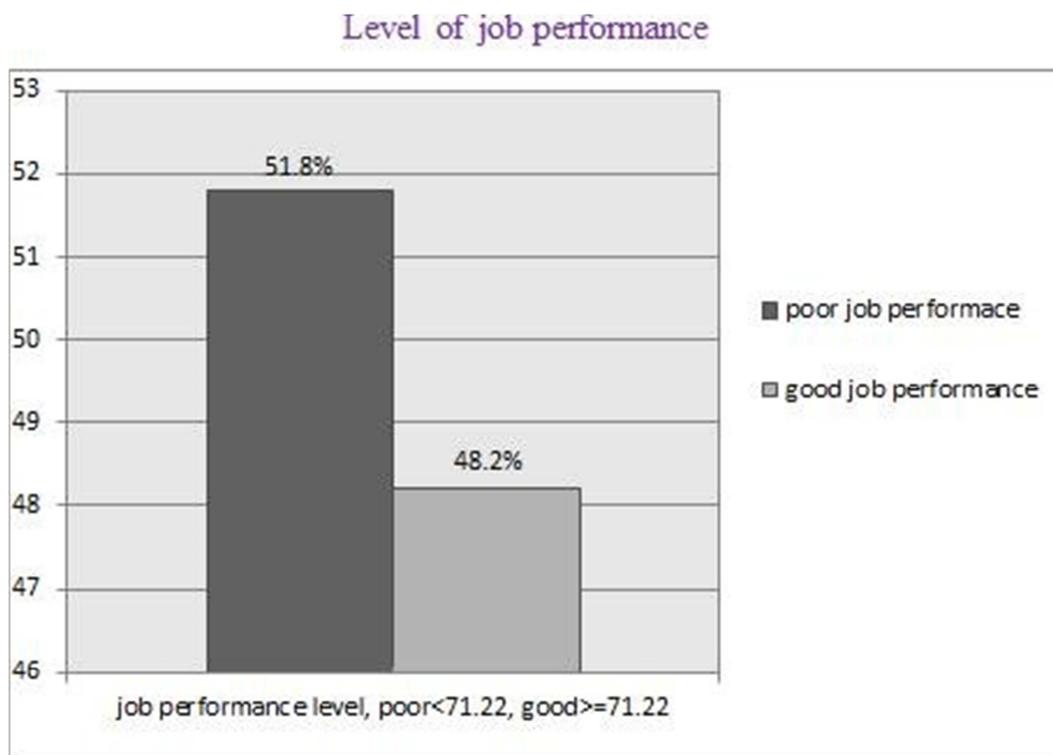


Figure 2. Level of job performance of health workers, West Hararghe Zone in public hospitals August to September 2018.

4.2. Level of Health Workers Job Performance

Self-rated job performance assessment of health workers in public hospitals of West Hararghe zone calculated by using total measures of job performance measurement items. The overall mean level of health workers job performance was computed to be 3.56[95%, CI: 3.50-3.65] on the five point Likert scale used in this study. This overall level of health workers job performances in percentage was computed to be 71.22% [95%, CI: 69.98- 72.53]. Overall self-rated job performance showed that majority 197 [51.8%] of health workers working in public hospitals of West Hararghe zone had poor level of job performance and 184 [48.2%] of them had good level of job performance.

Job performance level of 101 [51%] male was scored good job performance. Regarding with age whose below 35 years

155 [49.2%] were records good job performance, while majority 160 [50.8] of below 35 years old were records poor job performance. When regarding their professional type's 134 [51%] health professionals have good level of job performance [Figure 2].

4.3. Factors Associated With Health Workers Job Performance

Logistic regression analysis was conducted to examine the extent to which the independent variables; such as socio-demographic characteristics, working environments, working conditions and job satisfaction influence the dependent variable [job performance]. Since all value were significant and have p-value < 0.25 in binary logistic regression, they were entered into multivariate logistic regression [Table 2]

Table 2. Results of binary logistic regression of health workers job performances in West Hararghe Zone in public hospitals August to September 2018.

Variables	Level of job performance		COR [95%CI]	P value	
	Poor performance [n=197]	Good performance [n=184]			
Sex	Male	101 [51.3%]	105 [57%]	1	0.243
	Female	96 [48.7%]	79 [43%]	1.28 [0.84,1.94]	
Age of respondents	<35 years	151 [50.8%]	150 [49.2%]	0.24 [0.05,1.16]	0.076
	36-45 years	38 [62.9%]	19 [37.1%]	0.16 [0.03,0.84]	
	>46 years	3 [25%]	10 [75%]	1	
Marital status	Single	69 [33.9%]	76 [43.4%]	1	0.043
	Separated	12 [5.4%]	9 [4.6%]	0.67 [0.25,1.80]	
Educational level	Married	116 [60.8%]	98 [52.0%]	0.67 [0.43,1.03]	0.070
	Diploma	83 [57.4%]	56 [42.6%]	1	
Professional type	Degree and above	117 [48%]	124 [52%]	1.46 [0.94,2.25]	0.091
	Health professional	127 [49%]	129 [51%]	1	
Work experience	Supportive staffs	74 [57.8%]	50 [42.2%]	1.42 [0.91,2.23]	0.120
	<10 years	169 [51.7%]	149 [48.3%]	1	
	11-21 years	26 [63.2%]	18 [36.8%]	0.63 [0.31,1.25]	
Working hours	>22 years	7 [16.7%]	11 [83.3%]	5.34 [1.15,24.79]	0.032
	Less than 8 hours	80 [71.4%]	31 [28.6%]	1	
Income in ETB	More than or equal 8 Hours	117 [43.5%]	152 [56.5%]	3.24 [1.68,4.32]	0.000
	Less than 4000.00	109 [59.4%]	76 [40.6%]	1	
Working environment	More than or equal 4000ETB	93 [44.9%]	102 [55.1%]	1.80 [1.18,2.73]	0.000
	bad environment	109 [56.1%]	62 [33.3%]	1	
Working condition	good environment	88 [43.9%]	122 [66.7%]	2.56 [1.67,3.93]	0.000
	Poor working condition	111 [55.9%]	56 [29.9%]	1	
Job satisfaction	Good working condition	88 [44.1%]	126 [70.1%]	2.97 [1.93,4.59]	0.000
	Dissatisfied	119 [61.8%]	63 [33.9%]	1	
	Satisfied	78 [38.2%]	121 [66.1%]	3.16 [2.05,4.86]	0.000

Significant at p value < 0.25

The result obtained from multivariate logistic regression indicated that socio-demographic factors such as sex of respondents, marital status, working hours, both job performance dimensions working condition and job satisfaction were significantly related to level of health workers job performance in the final logistic regression model [p<0.05].

Considering sex of respondents, females were likely two times [AOR=1.896 [1.130, 3.180]] higher in good job performance when compared with males. By regarding marital status, respondents those married were likely two times [AOR=1.910 [1.116, 3.270]] higher in good job performance than single respondents. Regarding the length of

working hours, respondents who works more than or equal to 8 hours were likely three times [AOR=2.910 [1.653, 5.123]] greater in good job performance than those work less than 8 hours.

When considering working condition of respondents who had good job performance were those who work in good working condition were likely two times [AOR= 2.164 [1.128, 3.844]] greater than those working in poor working condition. Finally considering job satisfaction, respondents those satisfied with job were likely two times [AOR= 2.480 [1.374, 4.476]] greater than in good job performance than those were dissatisfied with job [Table 3]

Table 3. Predictors by multivariate logistic regression of health workers' job performances with determinants variables in West Hararghe Zone in public hospitals August to September 2018.

Variables	Level of job performance		AOR [95% CI]	P value	
	Poor performance [n=197]	Good Performance [n=184]			
1 Sex	Male	101 [51.3%]	105 [57%]	1	0.015
	Female	96 [48.7%]	79 [43%]	1.896 [1.130,3.180]	
2 Marital status	Single	69 [33.9%]	76 [43.4%]	1	0.904
	Separated	12 [5.4%]	9 [4.6%]	0.937 [0.327, 2.688]	
3 Working hours	Married	116 [60.8%]	98 [52.0%]	1.911 [1.116,3.270]	0.018
	Less than 8 hours	80 [71.4%]	31 [28.6%]	1	
4 Working condition	More than 8 hours	117 [43.5%]	152 [56.5%]	2.910 [1.653,5.123]	0.000
	Bad working condition	111 [55.9%]	56 [29.9%]	1	
5 Job satisfaction	Good working condition	88 [44.1%]	126 [70.1%]	2.164 [1.218,3.844]	0.008
	Dissatisfied	119 [61.8%]	63 [33.9%]	1	
	Satisfied	78 [38.2%]	121 [66.1%]	2.480 [1.374,4.476]	0.003

Significant at p value < 0.05

5. Discussion

Health workers job performance level is cornerstone for better productivity of any health care organizations. Less performing the health workers reduces public hospital productivity and a reason for poor hospitalized patient health outcome. Health workers job performance is the common approach of assessing quality of healthcare service provision in the world. It has been also implemented in Ethiopia [18].

Findings of our study indicated that the overall level of job performance of health workers in West Hararghe zone public hospitals were scores 71.22% [CI: 69.76-72.50]. The study showed that out of total respondents 184 [48.2%] were scored good job performance level. This finding has slight similarities with prior study conducted in Amhara region, Bahirdar in which the overall rate of job performance was 76.64% [CI: 76.25-77.03] [34]. This results have also indicate some relative with prior study done in Jimma University Special Hospital on nurses level of work performance, which overall level of nurses work performance were 67.8% [18]. Even if our finding was some relation with prior findings, our finding was lower than previous findings due to different socio-demographic characteristic, year of study done.

The overall mean level of health workers job performance was computed to be [mean =3.56, SD=.64] [CI: 3.50-3.65] and over all mean of job satisfaction was [mean=3.20, SD=0.67] [CI: 3.13-3.26] on the five point Likert scale used in this study. This result was comparable with a study done on public hospitals nurses performance in Addis Ababa region which indicate that job performance [mean=2.71, SD=0.48], job satisfaction [mean=2.55, SD=0.39, 33]. The finding of our results was different from that of previous study due to study period and place.

The most predicting variable such as sex, marital status, working hours, working condition and job satisfaction were significantly associated with job performance at p- value 0.05, CI 95%. Considering sex of respondents, females were likely two times [AOR=1.896 [1.130, 3.180]] higher in good job performance than males. The finding from cross-sectional study done in Nigeria were indicated that female staff has

higher performance than male [35]. The evidence obtained were support our finding with same suggestion.

By regarding marital status, respondents those married were likely two times [AOR=1.910 [1.116, 3.270]] higher in good job performance than single respondents. Prior study done in Kenya stated as married CHWs gave a higher performance than others [36]. This result has supportive suggestion with our finding.

Regarding the length of working hours, respondents who works more than or equal to 8 hours were likely three times [AOR=2.910 [1.653, 5.123]] greater in good job performance than those work less than 8 hours. Even, there was shortage of related literatures on the topic, the results may resulted due to health workers who work for long hours were get additional benefits and income. To get such advantage they work for long hours this may higher their performance level.

When considering working condition, respondents who had good job performance were those who work in good working condition were likely two times [AOR= 2.164 [1.128, 3.844]] greater than those working in poor working condition. Study done in Turkey were stated evidence which support our founding that employees those performed under the working conditions ranging from rarely to extremely unpleasant in terms of heat, cold, smells, noise, humidity, conditions influence employee to demonstrate low level job performance than the others who work under better conditions [37]. Other study done on „performances of hospital nurses' in Saudi Arabia, Riyadh showed confirmation evidence for our study and stated as work conditions in nursing, such working hours, shifts, and policies need to be re-examined to create more suitable work situation that motivate nurses into better performance [6]. Both findings were better evidence for supporting our results.

Finally considering job satisfaction, respondents those satisfied with job were likely two times [AOR= 2.480 [1.374, 4.476]] greater than in good job performance than those were dissatisfied with job. Prior study done in Ghana stated that job satisfaction is a main drive to work performance as employees enjoy providing healthcare services to patients. A satisfied worker has the desire to work hard since inner joy and happiness is the motivating factor for the work. A satisfied employee would have higher performance and to

increase the productivity [38, 24]. This finding was supported by previous study.

Limitation of Study

Asking the respondents to measure their level of job performance by self-report may not be free from bias. Qualitative study method was not used. The study did not include the other health facilities such as primary health centers, health posts and private clinics. Due to this reason, the findings of the study may not be generalized for representing all of health workers in all health facilities which were found in the zone.

6. Conclusion and Recommendation

6.1. Conclusion

The findings our study has indicated that health workers in West Hararge zone in public hospitals have poor level of job performance. The strong predicting variable such as sex, marital status, working hours, working condition and job satisfaction were significantly associated with job performance.

6.2. Recommendation

Regional Health Bueaue and Zonal Health office

Should give more attention on job satisfaction and working condition to improve health worker's job performance.

Should allocated human resources properly to facilitate working condition for minimize burden of workload on each health workers.

Hospitals

Hospitals managers should facilitate in conducive working condition for employees to improve their job performance.

The hospitals should provide job satisfaction factors such as learning opportunity, recognition promotion, rewarding system and others for health workers to improve better performance.

Researchers

Further investigation on the on job performance of health workers in public and private at all level of health facilities should be done.

Abbreviations

AOR: Adjusted Odd Ratio

CHW: Community Health Workers

CI: Confidence Interval

COR: Crude Odd Ratio

ETB: Ethiopian Birr

HO: Health Officers

HP: Health post

HRH: Human resource for health

MSQ: Minnesota Satisfaction Questionnaire

OHA: Ontario Hospital Association's

PHC: Primary Health Care

SPSS: Statistical Package for Social Sciences

WHO: World Health Organization

Author Contributions

Yassin Abraham and Biniam Worku made significant contributions to conception and design, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; agree to be accountable for all aspects of the work.

Availability of Data and Materials

All the data supporting the study findings are within the manuscript. Additional detailed information and raw data will be shared upon request addressed to the corresponding author

Declarations Ethics Approval and Consent to Participate

Ethical clearance was taken from Institutional Review Board of Jimma University Institute of health, and permission letter was obtained from zonal health department including from the respective hospital management. Written informed consent was obtained from all study participants prior to the data collection.

Name and other personal identifiers were not recorded to maintain confidentiality. All the protocol was performed in accordance with the relevant guideline and regulation. While approaching the respondents

Funding

This work was supported by Jimma University.

Acknowledgments

We would also like to express our deepest appreciation to all individuals [data collectors and supervisor] and public hospitals [Chiro, Galemso and Asebot Hospitals] those supported us during this research work for their indispensable contributions.

Last but not the least, the contribution of the study participants and the human resource departments of all selected hospitals is greatly appreciated

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Press D. Motivation of health workers and associated factors in public hospitals of West Amhara, Northwest Ethiopia. 2016; 159–69.
- [2] Roos, J. Factors affecting the performance of professional nurses in Namibia. 2012; 1–8.

- [3] Moses Oluoch Raminya FT. Factors Influencing the Performance of Health Workers: A Case Study of HIV / AIDS Programs in Msambweni Sub-County, Kwale County, Kenya. 2015; 4[11]: 544–51.
- [4] Imrana. A. Working environment and job satisfaction among health professional working at a Tertiary Care Hospital of Pakistan. 2015; 27[1]: 201–4.
- [5] Al-faouri I. Nurses' career commitment and job performance: differences between intensive care units and wards. *J Res Nurs*. 2007; 1–14.
- [6] Ahmadi H. Factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia. *Int J Heal Care Qual Ass*. 2014;
- [7] Asegid A, Belachew T, Yimam E. Factors Influencing Job Satisfaction and Anticipated Turnover among Nurses in Sidama Zone Public Health Facilities, South Ethiopia. 2014; 2014.
- [8] Lowe G. Using Common Work Environment Metrics to Improve Performance in Healthcare Organizations. 2013; 8–23.
- [9] Abualrub RF. Job stress, recognition, job performance and intention to stay at work among Jordanian hospital nurses., *J. of Nurs Manag*. 2008; 227–36.
- [10] Olafsdottir AE, Mayumana I, Mashasi I, Njau I, Mamdani M, Patouillard E, et al. Pay for performance: an analysis of the context of implementation in a pilot project in Tanzania. 2014; 1–9.
- [11] Nabi N, Munir S. The Impact of Human Resource Management Practices on Job Performances: A Case Study of Dhaka Bank Pvt. Ltd., *Hum Resour Manag Res*. 2016; 6[2]: 45–54.
- [12] Sector H, Plan T. Health Sector Transformation Plan.
- [13] Le Tran Thach Thao. Factors Affecting Employee Performance – Evidence From Petrovietnam Engineering. 2013; 1–6.
- [14] Lutwama GW, Roos JH, Dolamo BL. A descriptive study on health workforce performance after decentralisation of health services in Uganda. 2012; 1–10.
- [15] Abualrub RF. Job Stress, Job Performance, and Social Support Among Hospital Nurses. *J Nurs Scholarsh*. 2004; 3–6.
- [16] Leshabari MT. Motivation Of Health Care Workers In Tanzania: A Case Study Of Muhimbili National Hospital. *East African J P Heal*. 2008; 5[1]: 32–7.
- [17] Pryor ER. Occupational stress, job satisfaction and job performance among hospital nurses in Kampala, Uganda. *J Nurs Manag*. 2011; [Clegg 2001]: 760–8.
- [18] Bereda and Debalkie. Work Performance and Associated Factors among Employees in Amhara International Journal of Economics &. *Int J Econ Manag*. 2018; 7[2].
- [19] Bhargava R. Kotur SA. Education and Work-Experience - Influence on the Performance. *J Bus Manag*. 2014; 16[5]: 104–10.
- [20] Sarasvathy M. Identifying Factors That Influences Job Performance Amongst Employees In Oil Palm Plantation. Malaysia; 2013.
- [21] Oswald A. The Effect Of Working Environment On Workers Performance: The Case Of Reproductive And Child Health Care Providers In Tarime District. 2012.
- [22] Buabeng AA, Partial LIN. Influence Of Motivation On Health Worker Performance: A Case Study At Korle Bu Teaching Hospital. 2016.
- [23] Edem MJ AE and PN. Occupational Medicine & Health Affairs. *J Occup Med Heal Aff*. 2017; 5[2].
- [24] Aduo-adjei K, Emmanuel O, Forster OM. The Impact of Motivation on the Work Performance of Health Workers [Korle Bu Teaching Hospital]: Evidence from Ghana. 2016; 1[2]: 47–52.
- [25] Authors F. Factors influencing job performance of nursing staff Mediating role of affective commitment. *J Emerald Insign*. 2016; 2–8.
- [26] Khosravi M, Cherati JY, Enayati T. The Relationship between Job Motivations with Job Performance of Health Workers of Health Center, Sari. *J Manag Sci*. 2014; 2[12]: 431–4.
- [27] FINAL FACTORS AFFECTING EMPLOYEES PERFORMANCE.
- [28] FACTORS AFFECTING THE PERFORMANCE OF EMPLOYEES AT THE MINISTRY OF HEALTH HEADQUARTERS IN KAMPALA.
- [29] Makunyane CM. Factors Influencing Performance Of Nurses In The Makhuduthamaga Sub-District, Sekhukhune District, Limpopo Province, South Africa. 2012; 23–45.
- [30] Deriba BK, Sinke SO, Ereso BM, Badacho AS. Health professionals 'job satisfaction and associated factors at public health centers in West Ethiopia. *J Hum Resour Heal*. 2017; 1–7.
- [31] Martins H. Minnesota Satisfaction Questionnaire - Psychometric Properties and Validation in a Population of Portuguese Hospital Workers. 2012; [October].
- [32] RAMASODI JMB. FACTORS INFLUENCING JOB SATISFACTION AMONG HEALTHCARE PROFESSIONALS AT SOUTH RAND HOSPITAL. 2010;
- [33] Negussie N, Berehe C. Factors affecting performance of public hospital nurses in Addis Ababa region, 2018; 230: 1–3.
- [34] Temamen Tesfaye at el. Assessment of Factors Affecting Performance of Nurses Working at Jimma University Specialized Hospital in Jimma Town, Oromia Region, South-West Ethiopia. *J Nurs Care*. 2015; 4[6]: 4–10.
- [35] Akintola L, State O. Contextual influences of health workers motivations on performance in University of Ilorin Teaching Hospital. *Am J Sci Ind Res*. 2011; 216–23.
- [36] Kawakatsu Y at el. Individual and contextual factors associated with community health workers 'performance in Nyanza Province, Kenya: a multilevel analysis. *BMC Health Serv Res [Internet]*. 2015; 1–10. Available from: <http://dx.doi.org/10.1186/s12913-015-1117-4>
- [37] Kahya. E. The effects of job characteristics and working conditions on job performance. 2007; 37: 515–23.
- [38] Yee LC. An Analysis on the Relationship between Job Satisfaction and Work Performance.