



**RETENTION AND FACTORS AFFECTING PRIMARY HEALTH CARE WORKERS OF
PUBLIC HEALTH CENTERS IN JIMMA ZONE, OROMIA REGION, AND SOUTH
WEST OF ETHIOPIA. 2017/18”**

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ABSTRACT

Background: Retention reflect some minimum length of service and it is crucial in delivery of health service. In developing and middle income countries low staff retention and shortage of human resources for health are factors that are disabling health systems and health care provisions .Therefore this study is aimed at identifying factors affecting retention of Primary Health Workers Working at Public Health Centers of Jimma Zone of Ethiopia.

Methods: This facility based was a cross-sectional study, pretested questionnaire were self-administered to 307 health workers from various clinical specialties. The responses were collected and analyzed; results were presented in frequency and tables. **Results:** This study revealed that considerable proportions, 41.7% of the participants were not retained towards providing routine health care of clients. Job satisfaction and professional advancements were factors positively affecting retention of the respondents. Respondents’ attained professional advancements were 3.5 times more likely retained than those not advanced providers. Likewise, the odd of being retained for those satisfied at their job was 5 times higher than those unsatisfied at their jobs. **Conclusions:** Significant numbers of the primary health care providers participated in this study were found to be intended to retain towards jobs. Job satisfaction and professional advancements were factors influencing job retention among the primary health care providers. Therefore, administrative measures should be placed aiming at raising the primary health care providers’ retention.

KEYWORDS: Retention, Primary health care, health care workers, Ethiopia 2017/18.

INTRODUCTION

Health worker retention is critical for health system performance and a key problem is how best to motivate and retain health workers. Primary health care refers to out-of-hospital services provided by general practitioners, nurses and allied health professionals. Human resources determine the use of other available resources but Human resource management systems are facing serious problems in developing countries. Evidence indicates that the inheritance of continuous under-investment in human resources may possibly lead to the underachievement of health care services.^[1-2]

The retention of primary health care provider is identified as the determinant of the health sector performance.^[3] Therefore ensuring this is very significant to effectively deliver health service in several developing countries.^[4]

Several studies revealed that retained health personnel are more likely to apply their knowledge and skill to the

real establishment of health care and it also indicated that the efficient use of the skills of health workforce contribute to a lot provide and effective health care services.^[5-9]

Health worker retention can possibly influence the establishment of health care services provisions. However, in developing and middle income countries low staff retention and shortage of human resources for health are factors that are disabling health systems and health care provisions.^[1-2,5-6]

It is stated that the Primary health care provider’s retention and satisfaction have been affected by several factors.^[5] These factors include good management, supervisors and managers’ support and good working relationship with colleagues, financial aspects, career development, continuing education, health facility infrastructure.^[5,10]

Theories related to staff retention also identifies intrinsic factors like recognition, works itself, responsibility, advancement, promotion which and extrinsic factors like organization policy, relationship with (peers, subordinates and supervisor), working conditions, salaries, status and security which could significantly related to retention.^[11]

These factors become key constraints to achieving the sustainable development goals (SDGs) and crippling already fragile health care systems in low and middle-income countries like Ethiopia.^[12]

In Ethiopia different recent studies revealed that manpower in the health service is small and (41.4%) of them were not intended to retain at assigned health facilities and in Oromia region only 63.63% of health professions working in public health facilities highly motivated. Management at different levels of the health care delivery system appears to be led by health professionals who have no motivation, even no training.^[1,2,13]

To have adequate skill work force employee, fulfilling the basic need and supportive needs like comprehensive training, appreciating, appropriate payment and safe guarding the life of workers were the key agents to achieve proposed goal regarding reduction of morbidity and mortality in different region of the country.^[14]

The different studies conducted in our countries also indicated that there is the fact that low health worker retention may affect the success of health sector reforms and programs and it is found that less health care provider's retention and scarcity of human resources for health (HRH) are factors that are affecting health systems and health care. Despite this, the growth of health workforce has been given less consideration at international and country levels until.^[1,2,13]

Generally, low retention can compromise the performance of individual health workers, facilities and the health system as a whole. Moreover, the objectives of the health system are not being attained in most countries because of serious human resource policy crises, poor retention.^[14] The researchers have found limited documented research findings in Ethiopia that identify factors affecting retention of health care providers. Such information is critical to guide further improvement of the performance of individual health workers. This information will also be useful to other researchers to conduct large-scale studies on the same issue. Understanding the factors affecting retention will also help policy and decision maker to improve the motivation level of primary health care workers. Hence, the study aimed at identifying factors influencing retention of primary health care workers in south west of Ethiopia.

METHODS AND MATERIALS

Study design and setting

Facility based cross-sectional study design was conducted from March 1/01/2018 to April 1/02/ 2018 in public health centers of six woredas in south west of Ethiopia , Oromia regional state, Ethiopia(351 km far from capital Addis Ababa). As per south West of Ethiopia Jimma zone health bureau statistics, there are 84 operating government owned health facilities (3 hospitals and 81 health centers) offering preventive and curative services to Populations among other services. The study population was made up of all health care providers who were working in public health center in the district of Jimma Zone. There are a total of 1115 health center workers. Health centers are mainly staffed by registered nurses, midwives, public health officer's pharmacists, Environmental health Workers, and Medical laboratory technicians while medical doctors are not employed in Health centers because this category is mostly employed at District Hospital or beyond. A total of 307 of primary health care workers were selected by from the public health facilities located in the districts of Jimma zone of Ethiopia.

Sample size determination

Sample size was determined using the formula for single population proportion based on the following assumptions.

$$n = \frac{(Z\alpha/2)^2 p (1-p)}{d^2}$$

Where: n= is the size of the sample

$Z\alpha/2$ = is the standard normal value corresponding to the desired level of confidence (95%)

d=error of precision (5%)

P= is the estimated proportion of retention which is 58.6%(19).

$$n = \frac{(1.96)^2 (0.586)(1-0.586)}{(0.05)^2} = 373$$

Because the total population is less than 10,000 which is 1115, sample size was determination by using the correction formula as follow:-

$$Nf = \frac{373}{1 + 373/1115} = 279.4 \approx 279$$

By adding 10% non-response rate total sample size became (279+28) =307

Sampling Procedure and sampling technique

The target population comprised 1115 PHC workers at health centers in the Jimma zone. A total of 307 primary health care workers were selected from the health centers located in s districts of six Jimma zone by using simple random sampling technique. Next the determined sample is proportionally allocated to each districts(i.e.Jimma (62), Agaro (56), Limmu (54) and Serbo(53), Omoneda(43), Limmu Genet(39)). Then the sample proportionally allocated to each districts was

proportionally allocated to the number of each health center in each districts. Finally, Simple Random Sampling technique was used to select study units from list of human resource profile of health centers.

Data collection tools and Data Collection Procedure

Data were collected by using pretested and structured self-administered English version questionnaires. The questionnaire was adapted from guide enhancing Organizational Performance and self-assessment tools box.^[13] The questionnaire comprised of two parts which included: socio-demographic characteristics (age, sex, ethnicity, religion, educational status and marital status, and factors affecting retention including (satisfaction, advancement, and promotion). Measures were taken to ensure the quality of collected data. The questionnaire was pretested among 5% of the sample size in similar set up (Sokoru district health center) before the actual data collection and necessary changes were then made. The purpose of data collection and the importance of the study as well as the significance of true information were also enlightened to participants in order to maximize the response rate and generate reliable data. The data collectors were also trained on interview to enhance data accuracy and validity. There was close supervision of the data collectors by the researchers.

Data analysis procedure

The collected data was critically checked for its completeness then coded and entered by using Epidata 3.1, and exported to SPSS version 20. Reliability tests were employed on SPSS to check the instrument internal consistency. Descriptive statistics was used to describe each individual variable using mean, standard deviation and other methods. To test whether there is relationship between dependent variables and independent first

checked by binary regression and then Independent variables which had a P –value of less than 0.2 in bivariate analysis were entered to multivariate analysis to get adjusted odd ratio. The strength of association was determined using crude odds ratio in the bivariate analysis and adjusted odds ratio in multivariate analysis. The data was analyzed using descriptive statistics and presented with diagrams, tables and figures. Significant of statistical association was assured or tested using 95% confidence interval (CI) and p value (<0.05). Results were summarized in frequencies and percentages.

Ethical Considerations

The study secured ethical clearance from the Institutional Review Board (IRB) of Jimma University, Department of Nursing and Midwifery. Authorized letter was obtained from Jimma zone Health District .Study participants were informed about the purpose of the study, their right to refuse or withdraw from the study. Confidentiality was ensured by excluding their names or address in the questionnaire and final report. There were no psychological or social risks or discomforts involved in participating in this study.

RESULTS

Socio-demographic characteristics

A total of 307 health care providers were took part in the study. Half, 154 (50.2%) of the respondents were males, while 76(57.3%) of them were in the age range of 25–29 years with mean (SD) age of 27.51 (4.168). Above than half of the participants have five or less years of work experiences, 169 (55.04 %), and 79(25.7%) attained diploma in academic qualification, and 161 (52.7%) paid monthly payments of above than three thousands of Ethiopian birr (Table1).

Table 1: Socio-demographic characteristic of study respondents at primary health care in Jimm Zone, Oromia Region, South West of Ethiopia, 2017(N=307).

Variable	Category	Frequency	Percentage (%)
Age	20-24	67	21.8
	25-29	176	57.3
	30-34	48	15.75
	35-39	10	3.25
	≥40	6	1.9
	Total	307	100
Sex	Male	154	50.2
	Female	153	49.8
	Total	307	100
Service year	<5	169	55.04
	5-10	124	40.39
	11-15	9	2.93
	≥16	5	1.64
	Total	307	100
Profession	Nurses	97	31.6
	Midwives	64	20.8
	Pharmacist	39	12.7
	Health officer	45	14.7
	Laboratory technician	58	18.9

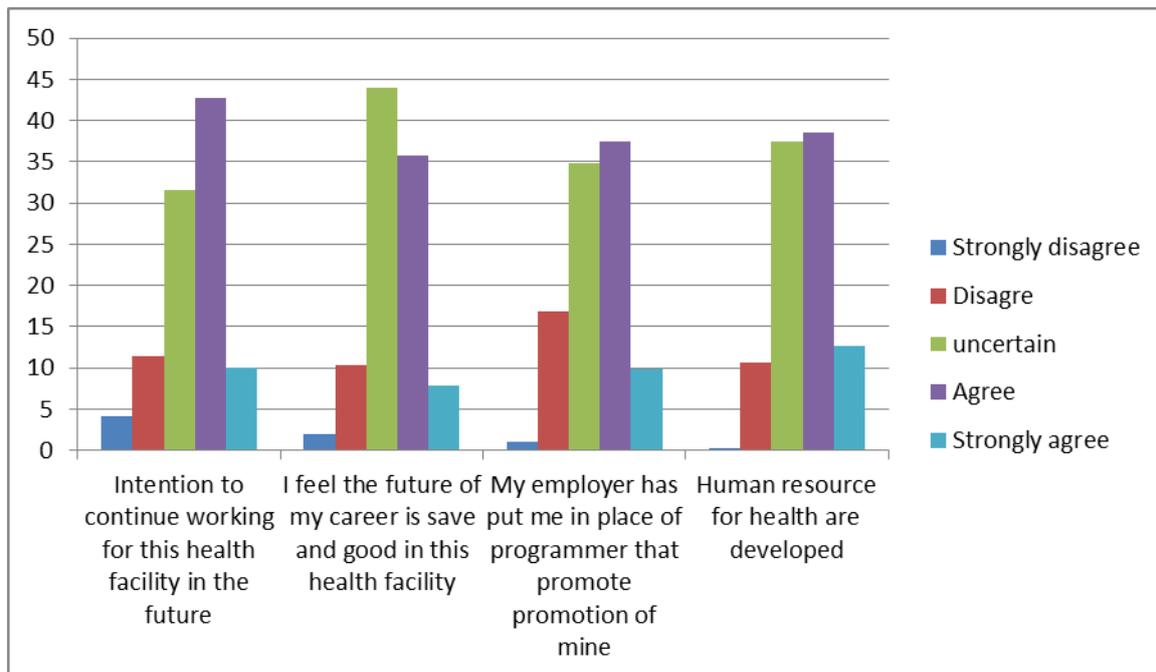
	Environmental health	4	1.3
	Total	307	100.0
Educational qualification	Diploma	194	63.2
	Bachelor	113	36.8
	Total	307	100.0
Monthly Income	1000-2000	26	8.5
	2001-3000	119	38.8
	≥3001	162	52.7
	Total	307	100

Retention status

More than half of the present study participants, 179(58.3%) were intended to retain towards providing routine care for their clients, while significant proportions, 128(41.7%) reported to be not retention to do their routine activities.

5.3 Intention to retain at primary health facilities

Regarding intention to retain at assigned health facility, majority of them which accounts 41.7% of them were agree with intention to continue in already assigned health center followed by uncertain respondents that accounts 31.6%. Concerning their feeling to their future of career to be save and good, majority of study participants were agree (35.8).



Among those retention primary health care workers, 129 (42%) were responded satisfied with their job.

Regarding to the working environments 101(32.9%) and 78(25.4%) study participants reported that they were working at favorable and unfavorable working environment respectively. 60(19.5 %) and 119(38.8%)

of retention health worker were reported that they are working under the supervision of democratic and non-democratic managers respectively. Concerning the salary, out of 179 intended to retain health workers 98(31.9%) of the respondents reported that their salary was adequate while the remaining 81(26.4%) were reported as it is not adequate (Table 2).

Table 2: Retention status of primary health care workers in Jimma Zone, Oromia Region, South west of Ethiopia, 2017(N=307).

Variables	Category	retention status					
		retained		Not retained		Total	
		Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Satisfaction	Satisfied	129	42.0	32	10.4	161	52.4
	Dissatisfied	50	16.3	96	31.3	146	47.6
	Total	179	58.3	128	41.7	307	100

Working Environment	Favorable	101	32.9	60	19.5	161	52.4
	Unfavorable	78	25.4	68	22.2	146	47.6
	Total	179	58.3	128	41.7	307	100.0
Management style	Democratic	60	19.5	20	6.5	80	26.0
	Non democratic	119	38.8	108	35.2	227	74.0
	Total	179	58.3	128	41.7	307	100
Salary	Adequate	98	31.9	36	11.7	134	43.6
	Not adequate	81	26.4	92	30.0	173	56.4
	Total	179	58.3	128	41.7	307	100.0
Advancement	Advanced	116	37.8	31	10.1	147	47.9
	Not advanced	63	20.5	97	31.6	160	52.1
	Total	179	58.3	128	41.7	307	100

Factors associated with Retention

In a logistic regression model, it was found that Satisfaction of study participants were positively affected with participants' motivation to their routine care (p=0.000). This means satisfied health care providers were 5.287 times more likely to be retained to their routine care than dissatisfied health care providers [AOR

(95%CI) 5.287(3.061,9.131)P value 0.000]. The advancement of health care providers was also found to be positively associated with intended retention of health care providers. Those health care providers who advanced were 3.5 times more likely to be retained than who did not advanced health care providers [AOR 3.472(1.995,6.045) and p-value of 0.000](Table 3).

Table 3: Factors associated with retention of study respondents of primary health care at Jimma zone, Oromia Region, South west of Ethiopia, 2017(N=307).

Variables		Level of retention			
		Retained No(%)	Not retained No(%)	COR(95% CI)	AOR(95% CI)
Satisfaction	Satisfied	129(42.0)	32	7.740(4.618,12.972)	5.287(3.061,9.131)**
	Dissatisfied	50(16.3)	96		
Management	Democratic	60(19.5)	20	2.723(1.541,4.810)	1.030(0.504,2.106)
	Nondemocratic	119(38.8)	108		
Salary	Adequate	98	36	3.092(1.904,5.024)	1.390(0.759,2.546)
	Not adequate	81	92		
Advancement	Advanced	116	31	5.761(3.468,9.571)	3.472(1.995,6.045)**
	Not advanced	63	97		

DISCUSSION

This study showed that the overall retention rate of the Jimma zone primary health care provider were 58.3%. This finding is different from a study conducted on retention factors Affecting It among Health Professionals in the Public Hospitals, Central Ethiopia which revealed that the overall retention level of health professionals was 63.63%.^[2] This difference may be due to the difference in socio-political system between the study areas. But this finding is similar with another study conducted at Public hospitals of West Amhara in Ethiopia which showed that 58.6% of study participants were intended to retain. This similarity might be due almost similar income and allowance, geographical similarity, similarity in methodological, nearly similar sample size and sampling method used.^[1]

This study indicated that there is no statistically significant relationship between socio-demographic variables and their retention and this is similar with the study conducted central Ethiopia but inconsistent with another study conducted in Addis Ababa public hospital which shown that nurses' retention be influenced by age.^[18] This difference might be due to the difference in study setting ,study participants. The study conducted in

Addis Ababa was carried at public hospitals and included only nursing health professionals.

This study stated that the main retention factors for health workers were Satisfaction level of health profession. In this study 42 % found to be satisfied with their jobs are motivated, but only 10.4% satisfied health workers are found to be not intended to retain. This finding is almost similar with the study conducted in Jimma University which shown that 41.4% of study participants were found to be satisfied at their job.^[15]

In another hand in this study Working Environment, Management style, Salary and qualification of the professionals were not found to be significantly associated with their retention. But is finding inconsistent with several other studies which has been done elsewhere on similar issues.^[1,2,5,6,8,9]

An advancement of health professionals was associated with their intention to retain. This means an advanced health care provider were 3.47 times more likely to be retained care providers than not advanced health care providers. However other similar study conducted in Federal hospitals of Ethiopia revealed that those who had

opportunity to develop were 2.3 times more likely to be retained when compared to those who had not opportunity to develop. This indicates that the recent study is higher than previously study conducted. The reason of discrepancy might be due to the difference in study area, degree of their highest qualification (for present study majority of them were diploma nurse) and place of residence of health workers (Rural (present study) vs rural (previous study)).^[17]

In conclusion retention of health professionals was affected by different factors: these are satisfaction and an advancement of health care professionals. A significant percentage of participants thought that the current advancement or promotion positively influenced their retention.

In general this study revealed that the proportion not retention PHC worker in the study setting was high (41.7%). In another way satisfaction and advancement of care providers were positively affect the retention of level of health care providers. The health system have to enhance the promotion and morale of care providers and have to increase the retention of health staffs by providing necessary supplies and increasing the satisfaction and promotion in order to increase the quality of health care at different level of prevention and curative aspects. Finally further Large scale study with a representative sample size is recommended to be conducted in same study area in the future.

The findings of this study should be interpreted in the light of its limitations this study was conducted in the six districts of Jimma zone of Ethiopia. The target population comprised PHC care workers based at health centers in Jimma zone of Oromia region, Ethiopia. Therefore, the study findings can be generalized only to the study setting. The study results cannot be generalized to the rest of the whole Oromia region or Ethiopia. As in all cross-sectional studies, we can infer association but not causation from our results. The result of this study depended on self-report of PHC workers and as a result there might be influence of social desirability; nevertheless, the study was confidential and data collectors were instructed to guarantee that their responses could not be related to them.

Competing interests

The authors declare that they have no competing interests.

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Authors' Contributions

Haso TK conceptualized the paper, searched literature, trained field researchers for data collection and wrote the results and discussion sections. He also wrote the draft manuscript. **Seid SS** contributed to the design of the

study and provided advice as regards methods, data interpretation and Ibro SA analyzed the data. He also critically reviewed and edited the manuscript. All authors read and approved the final manuscript

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