

ORIGINAL ARTICLE

## JOB SATISFACTION OF HEALTH EXTENSION WORKERS IN WEST GOJJAM ZONE, AMHARA REGION, ETHIOPIA

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### ABSTRACT

**Background:** Having highly satisfied health workers is one of the key resources for successfully implementing public health programs at grass root levels. Ethiopia implemented a nationwide Health Extension Program that is primarily staffed by health extension workers in rural areas in 2003. While the program is innovative and supposed to bring better health to the population in rural areas, studies done concerning the satisfaction of the health extension workers are rare. Therefore, the objective of this study was to measure the job satisfaction of health extension workers and identify factors associated with it.

**Methods:** A cross-sectional quantitative study was conducted among 282 health extension workers to assess their job satisfaction in West Gojjam Zone, Amhara Region, Ethiopia, in 2012. The sample size was determined using the single population proportion formula, and data were collected using a structured questionnaire containing satisfaction items on a Likert scale. The mean was used to report job satisfaction levels, while the multiple linear regression model was employed to identify factors associated with job satisfaction.

**Results:** Two hundred sixty-nine health extension workers participated in the study with a 95.4% response rate. The health extension workers' overall mean job satisfaction score was 3.33 out of 5. Job satisfaction had a significant association with organizational culture (t-score = 2.115,  $p < 0.05$ ), and workplace conditions (t-score = 7.607,  $p < 0.001$ ). Job satisfaction was also strongly related to organizational citizenship behaviour, motivational properties of jobs, job preferences ( $p < 0.05$ ), and job characteristics ( $p < 0.001$ ).

**Conclusion:** The job satisfaction of health extension workers can be potentially increased by improving workplace conditions and organizational culture. The workers were dissatisfied with extrinsic factors which are critical elements for improving their satisfaction by making it possible for them to be well-addressed by decision makers and managers.

**Key Words:** job satisfaction; health extension workers; workplace conditions; organizational cultures; Ethiopia

### BACKGROUND

Expanding access to basic health services is one of the challenges of public health programs in developing countries. Countries have adapted different strategies to address this issue. The Health Extension Program (HEP) of Ethiopia is an innovative approach implemented by the Government of Ethiopia to ensure the effectiveness of the implementation of its wider Health Sector Development Program (1). The HEP is mainly implemented at health posts which are designed to serve the population of each kebele,

about 5000 people. Every health post is staffed by two female health extension workers (HEWs) who are trained for one year and paid by the Government (2, 3).

To improve service quality, efficiency and equity, worker motivation is a key factor (4-6). Motivation is an internal psychological process that can be defined as an individual's degree of willingness to exert and maintain an effort towards organizational goals (6). Health workers motivational factors can be seen at individual, organizational and socio-cultural levels (6, 7).

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Individual level factors include a worker's individual goals, self-concept, and expectations for and experiences of outcomes and/or consequences of work motivation (6, 7). A worker's motivation is dependent upon the organizational context (organizational structures and processes, organizational culture, and human resource management inputs). Organizational structures and processes will affect workers' experience of outcomes and the nature of feedback that a worker receives from colleagues and supervisors within the health system.

Human resource management is an important organizational system which is likely to affect both workers' perception of their own capability and their true capability. Organizational work culture contributes to the individual's level of commitment and motivation. Finally, the social-cultural context (community expectations, peer pressure, societal values) will also contribute to the individual's motivational processes (6, 7).

Motivation determinants can also be classified as values, personality, organizational culture, workplace conditions, and personality (6, 7). Motivational outcomes can be seen as affective consequences (job satisfaction, and commitment), cognitive consequences and performance consequences of motivation (6-8).

Motivation by itself is not an observable phenomenon; what are possible to observe are only such results of the motivational process as improved performance and job satisfaction (6). The main focus of this study was job satisfaction which is an indicator of the affective consequences of HEWs motivation. Job satisfaction is the degree to which HEWs are content with their job which is measured in terms of opportunities to use abilities, to learn and do new

things, as well as pays, fringe benefits, educational and training opportunities, working conditions and relationships with co-workers, supervisors and the management (6, 7).

**Empirical Evidences:** Within the health sector, there are a substantial body of empirical works that explore the determinants of health workers' motivation (5, 9-13). Existing studies that examined factors affecting motivation mainly focused on the motivation of community health workers (CHWs), nurses and doctors and classified the determinants of motivation into incentives and disincentives or motivating and demotivating factors (12, 14-20).

Studies, like the systematic review of motivation and retention of health workers in developing countries (Africa and Asia) reported factors in terms of such major themes that regard motivation as financial benefits (salary or allowances), career development, continuing education, infrastructure, resource availability, and personal recognition or appreciation (21). Other studies conducted on conceptual framework and the determinants of health workers' motivation, categorized the determinants of motivation into value, personality, working conditions, and organizational culture (4-8, 22).

The HEP in Ethiopia, which started in 2003 in rural areas, is one of the major public health interventions that are producing promising results in terms of increasing the coverage of primary health care services. The HEWs are deployed in every village to implement the program, however, the level of their job satisfaction and associated factors have not been studied. Therefore, this study was conducted with the aim of assessing the job satisfaction of HEWs and factors associated with it.

## METHOD

**Study Design:** A cross-sectional quantitative study was conducted among 282 HEW's working in 141 health posts. The health posts were selected from 6 districts (Yilmana Densa, Mecha, Semien Achefer, Bure, Jabi Tehnan and Dega Damot) in West Gojjam Zone, which is one of the 10 zones of the Amhara National Regional State, Ethiopia. West Gojjam has 13 rural and 5 urban districts which are further divided into "kebeles".

**Sample Size and Sampling Procedures:** The sample size was determined using the single population proportion formula by assuming a 95% confidence interval (CI), 5% marginal error (d), and 50% of HEWs might be satisfied:

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

where, n = sample size, p = proportion of HEWs who may be satisfied, and d = assumed marginal error (5%).

$$n = \frac{(1.96)^2 (0.50) (0.50)}{(0.05)^2} = 384 \text{ HEWs}$$

Since the total number of HEWs in West Gojjam Zone was less than 10,000, the correction formula,  $n_f = n / (1 + n/N)$  was used,

where,  $n_f$  = sample size after correction, N = total number of HEWs

$$n_f = 384 / (1 + 384/772) = 256 \text{ HEWs}$$

Therefore, the final sample size was  $256 + 26 = 282$  HEWs, assuming a 10% non-response rate (26 HEWs).

A multistage sampling procedure was used to select the study participants. At the first stage, six rural districts were randomly selected out of 13. At the second stage, out of the 184 kebeles in these 6 dis-

tricts, 141 were selected randomly. Finally, 141 X 2 a total of 282 HEWs in the selected kebeles were included in the study.

**Data Collection Procedures:** A self-administered structured Likert scale questionnaire was used to collect information. The questionnaire was adapted from a previous study (6), and the data collection instrument and procedures were pre-tested before the actual data collection and modified to suit the local context. Data were collected during HEW's monthly meeting held at common places near their work area. Such meetings were usually attended by six HEWs from three kebeles. The questionnaire was filled in immediately by HEWs in the presence of data collection facilitators. The questionnaire had seven sections: one section on background information of HEWs, five sections on items thought to be associated with the determinants of job satisfaction, and one section on job satisfaction.

The first section asked about respondents' background information which included, age, total years of work experience, years of experience at the health post, and years of experience in the current position. The remaining 6 sections of the questionnaire contained a total of 123 individual items adapted from previous research on job satisfaction and individual determinants of job satisfaction (6). All these items used a 5-point Likert scale ranging from strongly disagree "1" to strongly agree "5".

In sections 2-6 of the questionnaire, HEWs were asked about their individual perceptions of various determinants of job satisfaction. Section 2 dealt with values, and contained 34 items related to work ethics (work as a virtue, personal values orientation, and personal effort orientation), locus of control, and expectations (perceptions of personal and social con-

sequences of poor performance). Section 3, on organizational culture, contained 19 items including items related to organizational citizenship behaviors, management and supervisory openness, and job pride. Section 4 focused on workplace conditions, and contained 30 items on motivational characteristics, job characteristics (job autonomy and feedback) and job preferences. Section 5 contained 22 items on personality scales, including items on generalized self-efficacy, motivational skills (motivational and emotional control), and desire for work achievement. Section 6 on organizational constraints and obstacles contained 6 items related to lack of materials and equipment, and bureaucratic constraints.

The seventh and last section focused on job satisfaction and contained 12 items grouped under general satisfaction, intrinsic satisfaction and extrinsic satisfaction. General satisfaction was measured in terms of how HEWs were satisfied with their co-workers, supervisor, job, pay and management. Intrinsic satisfaction was measured in terms of HEWs' opportunity to use their own skills in the job, learn new things, accomplish something worthwhile, and do something that makes someone feel good. Extrinsic satisfaction was measured by how HEWs were satisfied with fringe benefits, educational and training opportunities, and physical working conditions (space, lighting, and ventilation).

In general, based on the questionnaire, we used 6 scales and 21 sub-scales, that is, 5 scales and 18 sub-scales to measure the determinants of job satisfaction and 1 scale and 3 sub-scales to measure job satisfaction.

**Composite Scale Reliability:** Item responses to all sections of the instruments were quantitatively coded

and entered into a combined data file. Based on correlations and factor loadings, scales and sub-scales of job satisfaction and its determinants were developed. Cronbach's alpha, a measure of reliability which rates variability across individual items in a scale and across individuals in the sample, was used to retain variables for the final data analysis.

In this study, we used a Cronbach's alpha cut-off point of 0.70 for retaining the scales. In the reliability analysis, most scales showed a reliability of greater than 0.75. This indicated that the constructs measured by these scales seemed to hold in the health post settings of the study area. The items for measuring organizational constraint scale were dropped out of the final data analysis since the scale showed a very low reliability of 0.110. Based on the reliability analysis and Cronbach's alpha score, 5 scales (12 sub-scales) i.e. 1 scale and 3 sub-scales for measuring job satisfaction, and 4 scales and 9 sub-scales for measuring the determinants of job satisfaction were retained for final analysis of data (Table 1).

**Table 1:** Reliability scores of scales and subscales of HEW satisfaction and its determinants in West Gojjam Zone, Amhara Region, Ethiopia, 2012

<b>Scales</b>	<b>Sub-Scales (No. of items used in sub-scales)</b>	<b>Cronbach's alpha</b>	<b>Cronbach's alpha (standardized)</b>
<b>Values</b>	Work ethic (13)	0.75	0.77
	Expectations (2)	0.71	0.72
	<b>Total (15)</b>	<b>0.76</b>	<b>0.78</b>
<b>Organizational Culture</b>	Pride (3)	0.70	0.71
	Organizational citizenship (8)	0.86	0.86
	<b>Total (11)</b>	<b>0.84</b>	<b>0.84</b>
<b>Workplace Conditions</b>	Motivational properties (11)	0.77	0.78
	Job preferences (5)	0.74	0.75
	Job characteristics (10)	0.84	0.84
	<b>Total (26)</b>	<b>0.89</b>	<b>0.89</b>
<b>Personality</b>	Motivational skills (5)	0.70	0.73
	Desire for work achievement (6)	0.86	0.86
	<b>Total (11)</b>	<b>0.76</b>	<b>0.77</b>
<b>Satisfaction</b>	General satisfaction (5)	0.71	0.72
	Intrinsic satisfaction (4)	0.77	0.76
	Extrinsic satisfaction (3)	0.75	0.75
	<b>Total (12)</b>	<b>0.81</b>	<b>0.77</b>

**Data Analysis:** Data were entered into Epi-Info version 3.5.1 and analyzed by using STATA version 12 and by calculating the summated scores for the overall satisfaction. The Likert scale responses were summed up and treated as interval data. Hence, parametric statistical tests, such as mean, standard deviation, and linear regression were applied. Mean and standard deviation were used to describe demographic and work-related characteristics of HEW's job satisfaction and its determinants.

A simple linear regression was used to determine the association between each explanatory variable and

the outcome variable (job satisfaction). A multiple linear regression was used to control for confounding factors and to get less biased estimates of the true relationship between explanatory variables and the outcome variable.

**Ethical Issues:** The University of Gondar Ethics Review Committee approved the research proposal. A written informed consent was obtained from each participant. Personal identifiers of respondents were not taken to ensure confidentiality. The respondents were also informed of their freedom to withdraw at any time while they were being interviewed.

## RESULT

Two hundred sixty-nine HEWs with a response rate of 95.4% completed the questionnaire. All of them were females in the age range of 19 to 35 years and a mean age of  $23.47 \pm 2.23$  years. The mean total year of experience was  $4.13 \pm 1.53$ . Thirty-nine percent of the participants had supervisory roles (Table 2).

**Table 2:** Demographic and work-related characteristics of HEWs in West Gojjam Zone, Amhara Region, Ethiopia, 2012

<i>Variables</i>	<i>Number(%)</i>
<b>Age</b>	
Less than 22	41 (16.08)
22 - 23 years	94 (36.86)
24 - 25 years	80 (31.37)
More than 25	40 (15.69)
<b>Total</b>	<b>255 (100)</b>
<b>Total length of experience</b>	
1-2 years	41 (15.24)
3-4 years	90 (33.46)
5-8 years	138 (51.30)
<b>Total</b>	<b>269 (100)</b>
<b>Years of experience in Health Post</b>	
1-2 years	42 (15.61)
3-4 years	97 (36.06)
5-8 years	130 (48.33)
<b>Total</b>	<b>269 (100)</b>
<b>Supervisory role</b>	
Yes	105 (39.03)
No	164 (60.97)
<b>Total</b>	<b>269 (100)</b>
<b>Staff under supervision</b>	
1 staff	77 (73.33)
2 staff	28 (26.67)
<b>Total</b>	<b>105 (100)</b>

The overall mean score of job satisfaction was 3.33. The HEWs rated highest on the job satisfaction determinant subscale, desire for work achievement with a mean score of 4.56, and they rated lowest on the job satisfaction determinant subscale, job characteristics (job authority and feedback) with a mean score of 3.43 (Table 3).

**Table 3:** Mean scores by HEWs on satisfaction and its determinants in West Gojjam Zone, Amhara Region, Ethiopia, 2012

<b>Scale</b>	<b>Sub-Scales (No. of items used in sub-scales)</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>Values</b>	Work ethic (13)	4.23	.50
	Expectations (2)	4.25	.89
	<b>Total (15)</b>	<b>4.24</b>	<b>.49</b>
<b>Organizational Culture</b>	Pride (3)	3.80	.91
	Organizational citizenship (8)	3.50	.89
	<b>Total(11)</b>	<b>3.58</b>	<b>.77</b>
<b>Workplace Conditions</b>	Motivational properties (11)	3.78	.64
	Job preferences (5)	4.16	.67
	Job characteristics (10)	3.43	.83
	<b>Total (26)</b>	<b>3.72</b>	<b>.61</b>
<b>Personality</b>	Motivational skills (5)	3.99	.67
	Desire for work achievement (6)	4.56	.53
	<b>Total (11)</b>	<b>4.30</b>	<b>.50</b>
<b>Satisfaction</b>	General satisfaction (5)	3.36	.85
	Intrinsic satisfaction (4)	3.61	.99
	Extrinsic satisfaction (3)	2.89	1.24
	<b>Total (12)</b>	<b>3.33</b>	<b>.78</b>

The study indicated that, on average, one unit of organizational culture and workplace conditions were associated with 0.133 (t-score = 2.115,  $p < 0.05$ ), and 0.507 (t-score = 7.607,  $p < 0.001$ ) points of job satisfaction unit, respectively, other variables being constant (Table 4).

**Table 4:** Satisfaction measurement scales associated with HEWs satisfaction in West Gojjam Zone, Amhara Region, Ethiopia, 2012

<i>Model</i>	<i>Unstandardized Co-efficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>P&gt; t </i>	<i>95% CI</i>
	<i>Beta</i>	<i>Standard Error</i>				
Years of Experience in the health post	-.046	.025	-.090	-1.822	.070	-.095, .004
Values	.000	.006	.003	.052	.958	-.012, .013
Organizational Culture	.012	.006	.133	2.115	.035	.001, .023
Workplace conditions	.025	.003	.507	7.607	.000	.018, .031
Personality	.002	.008	.014	.244	.808	-.014, .018
Constant	.521	.420		1.240	.216	-.306, 1.347

**Model Summary:** *R* = .611, *R square* = .373, *Adjusted R square* = .361, *Std. Error of the Estimate* = .621, *R Square Change* = .373, *F Change* = 31.280, *Significance of F Change* = .000

The study also indicated that, on average, one unit of organizational citizenship behaviour, motivational properties of jobs, job preferences, and job characteristics were associated with additional 0.126 (t-score

= 2.086, *p* < 0.05), 0.197 (t-score = 2.601, *p* < 0.05), 0.138 (t-score = 2.302, *p* < 0.05), and 0.273 (t-score = 3.918, *p* < 0.001) points job satisfaction unit, respectively, holding other variables constant (Table 5).

**Table 5:** Satisfaction measurement sub-scales associated with HEWs satisfaction in West Gojjam Zone, Amhara Region, Ethiopia, 2012

<i>Model</i>	<i>Unstandardized Co-efficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>P&gt; t </i>	<i>95% CI</i>
	<i>Beta</i>	<i>Standard Error</i>				
Years of Experience in the health post	-.047	.025	-.092	-1.833	.068	-.097, .003
Work ethic	.007	.007	.062	.983	.327	-.007, .022
Expectations	-.038	.023	-.088	-1.678	.094	-.083, .007
Pride	.000	.016	-.002	-.043	.965	-.033, .032
Organizational citizenship	.014	.007	<b>.126</b>	<b>2.086</b>	<b>.038</b>	.001, .027
Motivational properties of job	.022	.008	<b>.197</b>	<b>2.601</b>	<b>.010</b>	.005, .038
Job preferences	.032	.014	<b>.138</b>	<b>2.362</b>	<b>.019</b>	.005, .059
Job characteristics	.025	.007	<b>.273</b>	<b>3.918</b>	<b>.000</b>	.013, .038
Motivational skills	.005	.014	.022	.379	.705	-.022, .032
Desire for work achievement	-.034	.014	.000	.002	.998	-.028, .028
Constant	.508	.432		1.174	.241	-.344, 1.359

**Model Summary:** *R* = .618, *R square* = .382, *Adjusted R square* = .359, *Std. Error of the Estimate* = .622, *R Square Change* = .382, *F Change* = 15.978, *Significance of F Change* = .000

## **DISCUSSION**

This study shows that job satisfaction has a significant association with organizational culture and workplace conditions. The study also indicates that job satisfaction has a significant association with organizational citizenship behaviour, motivational properties of job, job preferences, and job characteristics. HEWs are all right with the general as well as intrinsic satisfaction factors, but not so with the extrinsic ones.

HEWs are satisfied with the general satisfaction factors, such as their co-workers, and intrinsic satisfaction factors (opportunity to use abilities in the job, learn new things, accomplish something worthwhile, and do something that makes them feel good about themselves as persons) which is consistent with a cross-sectional study on job satisfaction among community health workers in the Islamic Republic of Iran in which the respondents are satisfied with the work itself and their co-workers (20). This may be due to the nature of the work itself as it mainly focuses on serving the community to which HEWs and community health workers are familiar.

HEWs are dissatisfied with extrinsic factors, such as fringe benefits, educational and training opportunities, and physical working conditions (space, lighting, and ventilation), pay, and management. This is consistent with the findings of studies in South Africa, Tanzania, Iran, and Pakistan showing that poor salaries, lack of promotions, poor access to training opportunities, poor working conditions, inadequate facilities for performing expected duties, and lack of career development opportunities are among factors that demotivate workers (15, 17, 20, 23). This is also supported by qualitative studies on issues relating to

recruitment, motivation and retention of health workers in sub-Saharan Africa that show lack of fairness and incentives, poor inter-professional relations, communication system, human resource management practices are the reasons for dissatisfaction and attrition (16, 19, 24); and mixed method studies in Bangladesh and Kenya that indicate heavy workload, dissatisfaction with pay, poor infrastructure, inadequate education facilities and opportunities, and inadequate supplies and supervision are factors contributing to dissatisfaction and attrition (25, 26). This could be due to the fact that compared to intrinsic factors, extrinsic factors such as salary, training opportunity, and working conditions tend to demotivate workers even if they are improved by the management.

This study indicates that job satisfaction of HEWs has a significant association with organizational cultures and working conditions. The result is consistent with those of studies on job satisfaction and work motivation among both public and private sector health workers in India (27) and work motivation of professional nurses in South Africa (15) that has identified good working relationships with colleagues and management as motivating factors.

The study also shows organizational behaviour has a positive significant association with the satisfaction of HEWs. This is consistent with an empirical study of job satisfaction and organizational behaviour at higher learning institutions in Malaysia that stated both intrinsic and extrinsic job satisfactions are positively associated with organizational citizenship behaviour (28). This may be due to the fact that organizational citizenship behaviour (which is manifested by acts, such as helping each other, giving constructive suggestions, sharing expertise, and acting as peacemakers) is more of self-doing a thing that could



result in the satisfaction of workers.

The motivational properties of jobs (opportunity for social interaction, clear and specific jobs, requirements and goals, variety of duties, tasks, and activities, high level of knowledge and skills, variety of knowledge and skills, opportunities for advancement, feelings of achievement and accomplishment, and opportunity to participate in decisions) improve the satisfaction of HEWs. Personal rewards and other non-monetary incentives for health workers are known to improve motivation and help retaining them in government positions for prolonged periods of time (14, 29).

Job preferences (being able to do a complete piece of work, having considerable freedom to adopt own approach, being able to judge own work performance, having job that gives a feeling of doing something really worthwhile, being able to achieve something that really has value), and job characteristics (job authority and feedback) positively correlate with the satisfaction of HEWs. The result is consistent with those of previous studies (30).

**Limitations:** This study was designed to assess the job satisfaction of HEWs using a cross-sectional design; thus, it was perhaps not possible to ascertain the causal relationships between job satisfaction and its determinants. The study enrolled only HEWs that were on the job at the moment; thus, HEWs who left the health sector earlier might have had different opinions. The work may also be prone to measurement bias since the questionnaire was a bit long due to the nature of the measurements of satisfaction and its determinants. However, we hope these limitations do not undermine the usefulness of the work as it has provided valuable information to policy makers; on

top of that, it can serve as a starting point for further investigations.

## CONCLUSION

The overall mean score for satisfaction was 3.33, and the overall job satisfaction determinants were 4.24 for values, 3.58 for organizational culture, 3.72 for workplace conditions, and 4.30 for personality. The study showed that job satisfaction of HEWs had a positive association with workplace conditions and organizational culture. It also indicated that organizational citizenship behaviour, motivational properties of jobs, job characteristics, (job authority and feedback), and job preferences were positively related with job satisfaction. The HEWs are dissatisfied with extrinsic satisfaction factors, such as the fringe benefits they received, educational and training opportunities, and physical working conditions (space, lighting, ventilation). HEWs are also dissatisfied with factors such as pay and management.

**Authors' Contributions:** MY conceived the study, participated in the design, collection, and analysis of the study, and drafted the manuscript. YB participated in the conceptualization and design of the study and helped to draft the manuscript. AW helped in the design of the study and analysis of the data, and contributed to the drafting of the manuscript. YK also participated in the design of the study and contributed to the drafting of the manuscript. All authors read and approved the final manuscript.

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**Competing Interests:** The authors declare that they have no competing interests.

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