

ORIGINAL ARTICLE**JOB SATISFACTION AND ITS DETERMINANTS AMONG HEALTH WORKERS IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL, SOUTHWEST ETHIOPIA.****Alemsket Yami¹, Leja Hamza¹, Alima Hassen², Challi Jira³, Morankar Sudhakar⁴****ABSTRACT**

BACKGROUND: *Human power is the back bone for the provision of quality health care for the population. High level of professional satisfaction among health workers earns high dividends such as higher worker force retention and patients satisfaction. There is limited amount of literature in the areas related to factors affecting job satisfaction and retention. The objective of this study was to determine the job satisfaction of health professionals working in Jimma University Specialized Hospital and factors affecting their level of satisfaction.*

METHOD: *A cross-sectional study was conducted to determine the level and factors affecting job satisfaction and retention of health professionals working in Jimma University Specialized Hospital. The study was conducted from March to October 2009 and included all categories of health professionals working in the hospital during the study period. Data was collected using self administered questionnaire and focus group discussion. After the data was collected, it was entered into a computer and analyzed using SPSS version 16.0 windows statistical software. Chi-square tests were made to evaluate association of different variables with job satisfaction, and P-value < 0.05, at 95% CI was taken as cut off point for statistical significance.*

RESULTS: *A total of 145 health professionals have responded for the self administered questionnaire. The result showed that sixty seven (46.2%) of the health workers are dissatisfied with their job. The major reasons reported for their dissatisfaction were lack of motivation, inadequate salary, insufficient training opportunities and inadequate number of human resources. Only sixty (41.4%) health professionals were satisfied with their job, the major reasons given were getting satisfaction from helping others and professional gratification. Suggestion given by the respondents to improve job satisfaction and increase retention rate included motivation of staff through different incentives such as bonus, house allowance, salary increment, establishing good administration management system and improving hospital facilities and infrastructure.*

CONCLUSION: *Job satisfaction of health professionals in Jimma University Specialized Hospital was found to be low. Responsible bodies should devise mechanisms to improve job satisfaction and retention of health professional so as to improve the healthcare services of the hospital.*

KEYWORDS: *Job satisfaction, Health Workers, Jimma University Specialized Hospital*

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INTRODUCTION

Health services are affected by many factors such as human resources, delivery system and health infra structures. Among these human resources is a vital component in delivering health services. Job satisfaction of the health workers is highly important in building up employee motivation and efficiency as higher job satisfaction determine better employee performance and higher level of patients' satisfaction (1). Job dissatisfaction resulting in burn out and turn over would exacerbate the current shortage and results in serious under staffing of health care facilities. This has the potential to have a negative impact on the delivery of patient care because there is evidence to suggest that reduction in health professional staff below certain level is related to poor patient outcomes (2).

In Ethiopia health service organization and management is decentralized, but, there is still shortage of health professionals in different disciplines. This has a great deal of undesirable impact on efficiency and resource allocation (3). Looking at the number of staff left health care institution in the five years between 1995 and 2000 rural hospitals were affected most with 33.3% of the staffs left, followed by regional hospital, health centers and central hospital each suffered 20% loss. The main cause for attrition was low salary followed by lack of educational opportunity and poor career structure (3). According to a survey done in the country 74.6% of medical doctors, 62.5% of pharmacists, 50.6% of nurses, 50.0% of sanitarians, 36.4% of pharmacy technicians, 45.5% of laboratory technicians and 34.2% of health assistants respectively responded that they were not satisfied with their job (3). Reasons for dissatisfaction were low salary (60.3%), narrow opportunity for further education (24.8%), inadequate facility and supplies (20.1%). Among those who reported satisfaction from their job, the main reasons were satisfaction from helping others (43%), professional gratification (32%) and the amount of monthly salary (18.1%) (3).

Despite the fact that human power is the backbone for the provision of quality health care for the population and high level of professional satisfaction among health workers earns high dividends such as higher worker force retention and patients satisfaction, there is limited amount of literature in the areas related to factors affecting job satisfaction and retention. The objective of this

study was to determine the level and factors affecting job satisfaction and retention of health professionals working in Jimma University Specialized Hospital.

METHODS

A cross-sectional survey was conducted from March to October 2009 in Jimma University Specialized Hospital (JUSH). JUSH is located in Oromia Regional state – Jimma town which is 354 kilometers southwest of Addis Ababa. It is the only referral Hospital in southwestern part of the country and provides specialized clinical services for about 12 million inhabitants. The hospital is managed by Jimma University since June 2001 and has continued to be a training, research and referral center. As of August 2009, the hospital has implemented Business Process Re-engineering a strategy designed to improve the clients', the service providers' and stakeholders' satisfaction.

All health professionals who were on job during the study period were included. As health professionals know English, close ended questionnaire was developed by researchers in English and it was pretested on 20 health professionals at Jimma Health Center prior to data collection. The content of the questionnaire included socio-demographic characteristics, lists of factors for satisfaction and dissatisfaction, future plans, measures that should be taken to improve job satisfaction of health professionals and reduce the turnover rate.

Ethical clearance was obtained from Jimma University Ethical Clearance committee and formal letter was written to the institution. All health workers on active duty in the hospital from April to May 2009 were included in the study. Data were collected using self-administered questionnaire after explaining the purpose of the study and getting informed consent. After collection, data were entered into a computer and analyzed using SPSS version 16.0 for windows statistical software. For Analysis the number of actual responses for each question were considered, hence total number of responses vary in each question. Chi-square test was made to evaluate association of different variables with job satisfaction, and P-value < 0.05, at 95% CI was taken as cut off point for statistical significance.

To measure job satisfaction respondents were asked to respond to a question 'are you satisfied with the job you are providing?' by choosing one of the four choices; yes, no, don't

know or no answer. Proportion (P) of health professionals who are satisfied was calculated using

$$P = \frac{\text{Number of satisfied}}{\text{Total number of respondents}} \times 100\%$$

RESULTS

Out of the total 205 health workers in the Hospital, 168 were on active duty during the data collection period, of which 160 of them volunteered to participate and were provided the self administered questionnaire where 145 returned the questionnaire making the response rate 86.3%.

Seventy six (52.4%) were males and the rest were females. Most of the participants were in the

age group less than 25 years; 38(26.2%). Seventy one (49.0%) of the respondents were Orthodox Christian by religion, 44 (30.3%) Oromo by ethnicity and 63 (43.4%) single. Out of 145 participants, 60 (41.4%) responded that they are satisfied from the work they do, 67 (46.2%) felt dissatisfied and the rest 12.4% could not decide (Table 1).

Satisfaction according to socio-demographic variables showed that more males 39 (58.2%) were dissatisfied than females 25 (47.2%); highest dissatisfaction rate was in the age group of 25-29 years 21(70.0%). However, there was no association between job satisfaction and socio-demographic variables (Table 1).

Table 1. Job satisfaction versus socio-demography in JUSH, April, 2009.

Variable	Total No. (%)	Number responded to satisfaction question	Satisfied No. (%)	Dissatisfied No. (%)	P- value
Sex (N=138)					
Male	76(52.4)	67	28(41.8)	39(58.2)	0.229
Female	62(42.8)	53	28(52.8)	25(47.2)	
Age (N=129)					
<25	38(26.2)	30	18(60.0)	12(40.0)	0.176
25-29	32(22.1)	30	9(30.0)	21(70.0)	
30-34	21(14.5)	19	8(42.1)	11(57.9)	
35-39	14(9.7)	14	8(57.1)	6(42.9)	
40-44	11(7.6)	8	3(37.5)	5(62.5)	
>_45	13(9.0)	13	8(61.5)	5(38.5)	
Religion (N=140)					
Muslim	26(17.9)	18	11(61.1)	7(38.9)	0.618
Orthodox	71(49.0)	66	29(43.9)	37(56.1)	
Protestant	40(27.6)	36	16(44.4)	20(55.6)	
Unknown	3(2.1)	2	1(50.0)	1(50.0)	
Ethnicity(N=139)					
Amhara	36(24.8)	33	11(33.3)	22(66.7)	0.419
Oromo	44(30.3)	40	19(47.5)	21(52.5)	
Gurage	17(11.7)	11	6(54.5)	5(45.5)	
Tigre	13(9.0)	13	7(53.8)	6(46.2)	
Dawro	8(5.5)	7	4(57.1)	3(42.9)	
Kefa	4(2.8)	2	0(0.0)	2(100.0)	
Not stated	17(11.7)	15	9(60.0)	6(40.0)	
Marital status (N=140)			25(43.1)	33(56.9)	
Married	62(42.8)	58	26(50.0)	26(50.0)	0.298
Single	63(43.4)	52	2(28.6)	5(71.4)	
Divorced	9(6.2)	7	4(80.0)	1(20.0)	
Separated	6(4.1)	5			
Total respondents	145(100)	127	60(41.4)	67(46.2)	

Respondents' characteristics according to professional background showed 87 (60.0%) were diploma nurses or midwives and 15 (10.3%) were

physicians. Twenty two (15.2%) had served less than one year and 18 (12.4%) had served for ten years or more. Majority of the respondents'

position was clinical 113 (77.9%). The monthly salary of 62 (42.8%) of the respondents was in the range of 1000 to 2000 Birr and only 8 (5.5%) used to get monthly salary of more than 2000 Birr. Significant proportion, 93 (64.1%) of the respondents didn't have part time job. Only 33(22.7%) of the respondents earn income from part-time work, of which the majority earn less than 500 Birr per month (Table 2).

Satisfaction according to professional background characteristics of the respondents showed that highest dissatisfaction among medical laboratory technologists (66.7%), and those having service between 6 to 10 years 8(72.7%), diagnostic by position 9(64.3%); monthly salary ranging between 1000 to 2000 Birr 35(58.3%). There appeared to be no association between job satisfaction and professional (Table 2).

Of the respondents, 60 (41.4%) were satisfied with their job (Table 2), the major reason given by 54 (90.0%) was satisfaction from helping others. Only five (8.3%) of the respondents satisfaction was justified by salary. More than half of the professionals' satisfaction level was high, 32 (53.3%) and medium, 14(23.3%). Only 11(18.3%) had very high satisfaction level (Table 3).

Of the respondents; 67(46.2%) were dissatisfied with their job, the major reasons were lack of motivation using providing housing, 33 (49.3%), incentives using top up, 40 (59.7%) and free health care, 40 (59.7%), bureaucratic constraint in relation to further education, 33 (49.3%) and lack of promotion,32 (47.8%). Of those dissatisfied; 18(26.9%) were very greatly dissatisfied (Table 3).

With regard to five years plan of the respondents; 79(54.4%) of the participants responded that they are planning to leave the hospital, making attrition rate to be 22 (15.2%) in the coming one year, 22(15.2%) in the second year,

Table 2. Job satisfaction versus professional category in JUSH, April, 2009.

variable	No. (%)	Not responded to satisfaction question	Satisfied No.(%)	Dissatisfied No. (%)	P-value
Professional category* (N=145)					
Physician	15(10.3)	15	7(46.7)	8(53.3)	0.656
Anesthesia expert	4(2.8)	2	1(50.0)	1(50.0)	
BSc nurse or mid wife	9(6.2)	8	4(50.0)	4(50.0)	
Diploma nurse or midwife	87(60.0)	77	35(45.5)	42(54.5)	
Health assistant	5(3.4)	4	3(75.0)	1(25.0)	
Health officer	4(2.8)	2	2(100.0)	0(0.0)	
Medical lab technician	9(6.2)	9	3(33.3)	6(66.7)	
Medical lab technologists	6(4.1)	5	2(40.0)	3(60.0)	
Service years(N=87)					
<1	22(15.2)	20	6(30.0)	14(70.0)	0.536
1-5	36(24.8)	34	13(38.2)	21(61.8)	
6-10	11(7.6)	11	3(27.3)	8(72.7)	
>_10	18(12.4)	18	9(50.0)	9(50.0)	
Position (N=145)					
clinical	113(77.9)	100	49(49.0)	51(51.0)	0.923
preventive	12(8.3)	9	4(44.4)	5(55.6)	
diagnostic	15(10.3)	14	5(35.7)	9(64.3)	
therapeutic	3(2.1)	2	1(50.0)	1(50.0)	
Monthly salary (N=119)					
<1000	49(33.8)	40	21(52.5)	19(47.5)	0.554
1000-2000	62(42.8)	60	25(41.7)	35(58.3)	
>2000	8(5.5)	8	4(50.0)	4(50.0)	
Off-work job(N=144)					
yes	51(35.2)	45	16(35.6)	29(64.4)	0.051
no	93(64.1)	82	44(53.7)	38(46.3)	
Pay for off-work job(N=33)					
<500	27(18.6)	23	7(28.0)	18(72.0)	0.075
>500	6(4.1)	6	4(66.7)	2(33.3)	
Total	145(100)	127	60(41.4)	67(46.2)	

- The categories of pharmacist (1), pharmacy technician (1), druggist (2), X-ray technician (1) and unknown (1), are not in the table as the number is 1 or 2 only.

Table 3. Factors and level of job satisfaction and dissatisfaction of health workers versus profession in JUSH, April, 2009

<i>Reasons for satisfaction</i>	<i>Profession</i>				<i>Total</i> (N=60)
	Physicians (N =7)	Nurses (N =39)	Laboratory Professionals (N =5)	*Others (N=9)	
Professional gratification	5(71.4)	23(59.0)	4(80)	6(66.7)	38(63.3)
satisfaction in helping others	6(85.7)	36(92.3)	5(100)	7(77.8)	54(90.0)
job security(salary)	0(0)	4(10.3)	1(20%)	0(0)	5(8.3)
Reasons for dissatisfaction	Physicians (N =8)	Nurses (N =46)	Laboratory Professionals (N =9)	*Others (N =4)	Total (N=67)
Lack of motivation using					
Housing	5(62.5)	21(45.7)	5(55.6)	2(50)	33(49.3)
Incentives	6(75)	23(50)	9(100)	2(50)	40(59.7)
Free health care	5(62.5)	28(60.9)	6(66.7)	1(25)	40(59.7)
Beaurocratic management in relation to					
annual leave	0(0)	9(19.6)	2(22.2)	0(0)	11(16.4)
further education	3(37.5)	23(50)	6(66.7)	1(25)	33(49.3)
transfer	1(12.5)	9(19.6)	6(66.7)	0(0)	16(23.9)
leave governmental institution	3(37.5)	6(13.0)	2(22.2)	0(0)	11(16.4)
Lack of promotion	4(50)	20(43.5)	6(66.7)	2(50)	32(47.8)
Insufficient resources and supplies of					
medical instruments	8(100)	15(32.6)	7(77.8)	0(0)	30(44.8)
essential drugs	8(100)	12(26.1)	5(55.6)	0(0)	25(37.3)
chemical reagents	8(100)	8(17.4)	6(66.7)	0(0)	22(32.8)
Poor infrastructure	6(75)	12(26.1)	4(44.4)	0(0)	22(32.8)
inadequate salary	7(87.5)	22(47.8)	3(33.3)	1(25)	33(49.3)
Insufficient training					
long term training	5(62.5)	16(34.8)	5(55.6)	0(0)	26(38.8)
short term training	4(50)	15(32.6)	2(22.2)	0(0)	21(31.3)
in-service training	4(50)	14(30.4)	3(33.3)	0(0)	21(31.3)
Lack of job description	4(50)	11(23.9)	2(22.2)	1(25)	18(26.9)
Poor infection prevention practices	5(62.5)	10(21.7)	1(11.1)	0(0)	16(23.9)
Poor participation	5(62.5)	14(30.4)	2(22.2)	0(0)	21(31.3)
Shortage of human power	2(25)	16(34.8)	4(44.4)	0(0)	22(32.8)
Poor interaction with other team members and supervisors	6(75)	17(37.0)	1(11.1)	0(0)	24(35.8)
Level of satisfaction (N=60)	Number (percent)				
very high	11(18.3)				
High	32(53.3)				
Medium	14(23.3)				
Low	2(3.3)				
Level of dissatisfaction (N=67)	Number (percent)				
Dissatisfied	20(29.9)				
Greatly dissatisfied	15(22.4)				
Very greatly dissatisfied	18(26.9)				

*Others (Druggists, health assistants, anesthesia experts, X-ray technicians, Unknown)

18(12.4%) in the third year, 10(6.9%) in the fourth year and 7(4.8%) in the fifth year. Regarding to specific profession, 9(60.0%) of the physicians, 55(57.9%) of nurses and 8(53.3%) of laboratory professionals claimed to leave the institution. The reason given to leave the institution includes job dissatisfaction by 45 (57.0%), family related issues 13(16.5%) and personal related issues 22(27.8%). Majority of those who plan to leave the institution were aiming to work in NGO/private sectors (Table 4 and 5).

Only 23 (15.9%) of the respondents plan to continue to work in the hospital for five and/or

more years. Regarding to specific profession no physician, 17(17.9%) of nurses and 3(20.0%) of laboratory professionals plan to continue to work for five or more years. The main reasons given to stay in the hospital were family related issues, 13 (56.5%) and commitment to serve the government institute, 11 (47.8%). only 3(13.0%) of the respondents gave job satisfaction as reason to stay for five or more years. The rest of the respondents responded that they don't know, 22 (15.2%) or no answer, 19 (13.1%) (Table 4 and 5).

Table 4. Future plan of participants of health workers versus profession in JUSH, April, 2009

Future plan	Profession				
	Physicians(N=15) N (%)	Nurses(N=95) N (%)	Laboratory professionals(N=15) N (%)	*Others(N=18) Number (%)	Total (N=143) N (%)
Leave the institution	9(60)	55(57.9)	8(53.3)	7(38.9)	79 (55.3)
Within 1 year	4(26.7)	14(14.7)	0(0)	4(22.2)	22(15.4)
Within 1 to 2 years	2(13.3)	17(17.9)	3(20)	0(0)	22(15.4)
Within 2 to 3 years	3(20)	12(12.6)	2(13.3)	1(5.6)	18(12.6)
Within 3 to 4 years	0(0)	7(7.4)	1(6.7)	2(11.1)	10(7.0)
Within 4 to 5 years	0(0)	5(5.3)	2(13.3)	0(0)	7(4.9)
Continue to work in the hospital	0(0)	17(17.9)	3(20)	3(16.7)	23(16.1)
Don't know	4(26.7)	11(11.6)	3(20)	4(22.2)	22(15.4)
No answer	2(13.3)	12(12.6)	1(6.7)	4(22.2)	19(13.3)

*Others (Druggists, health assistants, anesthesia experts, X-ray technicians)

Table 5. Reason to stay or leave the institution of health workers in JUSH, April, 2009

Reasons to stay (N=23)	Number(%)
Satisfaction with job	3(13.0)
To get chance for further education	6(26.1)
To complete the commitment to serve the government institute	11(47.8)
Family related issues	13(56.5)
Personal related issues	5(21.7)
Reasons to leave (N=79)	
Job dis-satisfaction	45(57.0)
Family related issue	13(16.5)
Personal related issues	22(27.8)
Change of profession	25(31.6)
Unspecified	9(11.4)
Intention after leaving the institution(N=79)	
Working in other governmental organization	21(26.6)
Work in NGO/private	33(41.8)
Work in non-health institution	11(13.9)
Running own business	8(10.1)

Analysis of job satisfaction versus future plan showed significant association between job dissatisfaction and intention to leave; fifty one (91.1%) of dissatisfied versus 22 (61.1%) of satisfied plan to leave their job ($p = 0.001$) (Table 6).

Table 6. Job satisfaction versus future plan of health workers in JUSH, April, 2009.

Variable	Future plan		P-value
	Stay Number (%)	Leave Number (%)	
Yes	14(38.9)	22(61.1)	0.001
No	5(8.9)	51(91.1)	
Total	19(20.7)	73(79.3)	

Suggestions given by the respondents to alleviate the existing problems of health workers and to improve health care service includes motivation of staff by 86 (59.3%), establish good system for administration, management and coordination of activities with clear job description by 12 (8.3%) and improve hospital facility, infra structure and working condition by 9 (6.2%) (Table 7).

Table 7. Suggestion given to retain health professionals of health workers in JUSH, April, 2009.

Suggestion	Number(percent)
Motivation of staffs with*	86(68.8)
incentives,	10(11.6)
increasing salary and	30(34.8)
income generating options	8(9.3)
free health care,	4(4.7)
Provision of housing or housing allowance	3(3.5)
Improve training and further education	28(32.6)
More frequent promotion	3(3.5)
Avail medical instruments, supplies, drugs, chemical reagents	7(8.1)
Improve hospital facility, infra structure and working condition	9(10.4)
Establish good system for administration, management and coordination of activities with clear job description	12(13.9)
Establish good relationship and Co-ordination among professionals within and among departments	2(2.3)
Encourage direct participation of health professionals in planning, managing and evaluating activities in respective departments and units	2(2.3)
Establish a system that avoids partiality in evaluating performances and providing position	7(8.1)
Total	145(100.0)

*Various types of incentives are calculated with number of motivation staff

DISCUSSION

Job satisfaction is the degree of favorableness with which the employees view their work. It is an issue that affects the lives of all workers including health professionals and is also a factor that determines whether an employee will remain in a position or seek work elsewhere. Furthermore, job satisfaction can influence the quality of work produced (4).

In this study, majority of the respondents (46.2%) were dissatisfied with their job. This finding is consistent with previous study done in Ethiopia (3). The major reasons were lack of motivation, bureaucratic management, lack of promotion, insufficient resources and supplies, poor infrastructure, poor participation and interaction with team members and supervisors and inadequate

human power. This finding is consistent with the finding of a study done in 2004 in Canada on community pharmacists in whom the respondents reported that adequate staffing; increasing resources and salary were main factors for improving job satisfaction of pharmacists (5). It is also consistent with other studies done in four states of America where opportunities for professional growth, recognition of accomplishments of assigned duties and realistic work load in relation to salary were suggested to be addressed to increase satisfaction of health professionals on their job thereby improve the health care provided (6).

Some obstacles to job satisfaction may originate from the hospitals' management system itself. The hospital operates under bureaucratic principles with multi level hierarchy of authority. According to Francis and Stone (7), the bureaucratic mode contradicts the professional mode. The bureaucratic mode relies on the system and the sub-ordination of the individual to it; whereas the professional mode focuses on the individual. This is likely to lead to conflict and dissatisfaction among individuals. This fact is further evidenced on this study as 12(8.3%) of the respondent suggested establishment of a good system for administration, management and coordination of activities to increase job satisfaction of health workers.

Factors such as lack of promotion, insufficient trainings and lack of job description were also predictors for job satisfaction on health professionals in JUSH. A similar result was reported by a study done on pharmacists of Arizona state of USA where inability to use their skills on the job, lack of implementation of proper policies and procedures, lack of training, lack of gaining appreciation for work well done were main reasons for their job dissatisfaction which lead them to leave their job (8).

HIV/AIDS in addition to its impact on the society & health sector, it also create fear of infection by health professionals while giving care to their patients and could be one of the factors for job dissatisfaction as clearly indicated in this study; 23.9% of the participants cited poor infection prevention practices in the hospital as one of their reasons for job dissatisfaction.

Less than half of the respondents were satisfied with their job. The main reasons for their satisfaction were satisfaction in helping others, professional gratification, and job security. This is

consistent with previous study in Ethiopia (3).

The rate of intention to leave this study is higher than a previous study done in Ethiopia eight years back (3). This is because of the increasing opportunities and attractive salaries for health workers from NGO or private sectors as compared to public institutions. This is strengthened by looking at the professional's plan after leaving the institution; majority of those who planned to leave are planning to work in NGO or private sector.

The study showed association between job dissatisfaction and intention to leave and among those who plan to continue working; only 13% were satisfied. These two facts show the working condition of the hospital is not favorable. Therefore, if the current problems are not alleviated, the health services will obviously face more complicated challenges and finally fails to achieve its objectives and targets.

Unlike most other study, the current study tried to describe the need of the health professionals in details, by doing so; practical changes to be made have been clearly identified. This is very important as policy makers can get inputs from the result while designing strategies to improve health care workers satisfaction and increase retention rate of health workers in different governmental health care facilities.

In conclusion, the findings of this study have indicated that there is high level of job dissatisfaction and intention to leave job in the coming five years in Jimma University Specialized Hospital which can greatly affect the quality of health services provided by the hospital and needs wide scale further study to maintain the quality of the health services.

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REFERENCES

1. Mowday RT. Strategies for adapting to high rate of employee turnover. *Hum Resour manage* 1984;23 (4): 365-80.
2. Fridrkin SX, Pear SM, Williamson TH et al. The role of understaffing in central venous catheter association blood stream infection. *Infect control Hosp epidemic*. 1996; 17; 150-158.
3. Government of Ethiopia and the World Bank. *Health Sector Review*, Ethiopian

-
- social sector studies. Addis Ababa: Mega, 2004, 1st Ed.
4. Stewart JE. Hospital pharmacists 'job satisfaction': A review of date. *Top Hosp Pharm Manage.* 1983; 3: 1-9.
 5. Trends and insights 2004. (available online at: http://www.mckesson.ca/documents/trends_2004.pdf). Accessed on 10 December 2009.
 6. Barnes DS. Job satisfaction and Rehabilitation Professional Administration and Management. *Quarterly American occupational Therapy Association.* 1998; 14(4):1-2.
 7. Francis RG, Stone RC. Services and procedures in Democracy: A case study. Minneapolis, MN: University of Minnesota press: 1956.
 8. Cox ER, Fitzpatrick V. Pharmacists Job satisfaction and perceived utilization of skills. *AMJ Health -syst pharm.* 1999; 56: 1733-7.
 9. Standard D, Meels W, Lehman U: Public health in Africa. In: Beaglehole R. (Ed) 'Global public health a New era. Africa: WHO, OUP 2003, Chapter 8: 135-138.