



Addis Ababa University
School of Commerce
Department of Project Management

Effect of Employee Satisfaction on Client
Satisfaction in Public Health Centers of Addis
Ababa

A Research Thesis Submitted to Addis Ababa University,
School of Commerce for the Partial Fulfilment of the Degree
of Masters in Project Management

By: Habtamu Alemay
Advisor: Dr.Abraraw Chanie (PHD)

June 2022
Addis Ababa, Ethiopia

Addis Ababa University
School of Commerce
Department of Project Management

Effect of Employee Satisfaction on Client
Satisfaction in Public Health Centers of Addis
Ababa

A Research Thesis Submitted to Addis Ababa University,
School of Commerce for the Partial Fulfilment of the Degree
of Masters in Project Management

By: Habtamu Alemay
Advisor: Dr.Abraraw Chanie (PHD)

June 2022
Addis Ababa, Ethiopia

Declaration

I, the under signed, declare that this thesis entitled “Effect of Employee Satisfaction on Client Satisfaction in Public Health Centers of Addis Ababa City Administration”, is my original work and to the best of my knowledge has not been presented for a degree by any other person, and that all the sources of material used for the thesis have been duly acknowledged.

Declared By:

Habtamu Alemay

Signature

Statement of Certification

This is to certify that the thesis carried out by **Habtamu Alemay** on the topic entitled: **“Effect of Employee Satisfaction on Client Satisfaction in Public Health Centers of Addis Ababa City Administration”** is his original work and is suitable for submission for the award of Masters of Art Degree in Project Management.

Advisor

Abraraw Chanie (PHD)

Date and Signature

Addis Ababa University
School of Commerce
Department of Project Management

Effect of Employee Satisfaction on Client Satisfaction
in Public Health Centers of Addis Ababa City
Administration

By: Habtamu Alemay

Approved by Board of Examiner

_____ Dean, Graduates Studies	_____ Signature	_____ Date
<u>Abraraw Chanie (PHD)</u>	_____ Signature	_____ Date
Advisor	Signature	Date
<u>Dr Abera (PHD)</u>	_____ Signature	_____ Date
External examiner	Signature	Date
<u>Dr. Wubshet B.(PHD)</u>	_____ Signature	_____ Date
Internal examiner	Signature	Date

Acknowledgement

First I want to extend my acknowledgment for my Advisor Dr. Abraraw Chanie (PHD) for his guidance and constructive comments to finalize my project work. I also want to acknowledgment to the Addis Ababa City Administration Health bureau, Lideta and Nefas Silk Lafto sab city health office and all health center staffs and heads for their collaboration during data collection.

Table of Contents

Table of Contents.....	7
List of table	9
List of Figures	9
Acronyms.....	10
Abstract.....	11
Chapter One: Introduction	12
1.1. Background of the Study.....	12
1.2. Statement of the Problem.....	13
1.3. Research Question	14
1.4. Research Objective	14
1.4.1. General Objective	14
1.4.2. Specific Objective.....	14
1.5. Significance of the Study	16
1.6. Scope of the Study	16
1.7. Definition of Operational Terms.....	16
1.8. Organization of the Study	17
Chapter Two: Review of Related Literature	18
2.1. Related Literature.....	18
2.2. Conceptual Framework.....	20
Chapter Three: Research Methods and Materials	21
3.1. Research design	21
3.2. Description of study variables.....	21
3.3. Description of study area and target population	22
3.4. Sampling Technique and Sample Size.....	23
3.5. Data collection	23
3.6. Data analysis	24
3.7. Reliability and validity analysis.....	24
3.8. Ethical Consideration.....	24
Chapter Four: Result and Discussion.....	25
4.1. Descriptive analysis	25
4.1.1. Socio Demographic Characteristics	25
4.1.2. The level of satisfaction of Employee and clients	29
4.2. Regression Analysis.....	32
4.2.1. Bivariate and Multivariate regression analysis	32
4.3. Discussion.....	36
Chapter Five: Summary, Conclusion and Recommendation	39
5.1. Summary of Findings.....	39

5.2. Conclusion	39
5.3. Recommendation	40
Reference	41

List of table

Table 1: Sociodemographic characteristics of the employ respondents (n=564) -----	25
Table 2: Sociodemographic characteristics of the client respondents (n=564)-----	27
Table 3: Job related characteristics of the employee (N= 564) -----	28
Table 4:Proportion of satisfied employees and clients in the Public health center of Lideta and Nefas Silk Lafto Sub city, Addis Ababa(n=564) -----	30
Table 5: Level of employ satisfaction in the four thematic areas with five point scale among health care workers in Addis Ababa City Administration(N=564) -----	30
Table 6: Bivariate and Multivariate regression analysis of factors for client satisfaction in Addis Ababa City Administration, 2022-----	33

List of Figures

Figure 1: Conceptual framework adopted from literatures.....	20
--	----

Acronyms

AAU: Addis Ababa University

AAUSoc: Addis Ababa University School of Commerce

AOR: Adjusted Odd Ratio

CI: Confidence Interval

COR: Crude Odd Ratio

EPHI: Ethiopian Public Health Institute

FMOH: Federal Ministry of Health

HSTP: Health Sector Transformation Plan

SPSS: Statistical Package for Social Science

WHO: World Health Organization

Abstract

This study aims to assess at what level employee satisfaction affects client satisfaction in the health centers of Addis Ababa City Administration from April 2022 to June 2022. Data was collected by self-administered questionnaire for employee and interview using structured questionnaire for the clients from a total 1128 participants with 564 employ and 564 clients in selected health centers of Addis Ababa City Administration. The data analysis was done based on the descriptive and regression analysis using SPSS version 20.

The result showed that the employ (health care worker) satisfaction was relative low compared to other hospital level studies in some part of the country. It has significant impact on the client satisfaction. In addition clients' income, age, educational status, marital status and occupational status were factors that affect client's satisfaction level on the health care service. Elders and literates were less satisfied and those with better income were better in satisfaction. Singles and separated clients were less satisfied compared to married ones.

From the finding of this study, the investigator concludes that significant proportion of health care workers working in the health center of Addis Ababa city administration was no satisfied on their job. Similarly significant proportion of clients who got service in the same health centers during the study period. Employ (health care workers) satisfaction highly affects the client satisfaction level. Employes have less satisfaction score with payment and incentive (salary, development opportunity, medical insurance, and fairness of incentives). Improving the payment and incentive including the process will solve significant proportion of the problem.

Key words: Employ Satisfaction, Health Care Quality, Client satisfaction, and Health Care Workers

Chapter One: Introduction

1.1. Background of the Study

Human resource is one of the most important parts of the six-health system strengthening building blocks (Sandra, 2014). Human resource in health also called health work force includes the health professionals and other supportive staffs working in finance and procurement, asset management, information management, and security department in the health care institutions and health administration offices with different discipline (Ethiopian FMOH, 2019). The coordinated effort of this human resource with other health system building blocks (Leadership and Governance, Supplies and Logistics, Health Information System, Health Care Financing, and Service delivery) will result in effective health care system. In this, regard the human resource play the major role for the functionality of other components (WHO, 2019). The level of motivation and job satisfaction of the health work force is one of the critical factors for effective and quality service delivery. Job satisfaction is the positive attitude of the employees to their work and position, while client satisfaction is the level of contentment of customers with the services they get from health facilities. It is also defined as the level of agreement of client's expectation on health care service with actual experience. The health workforce is likely to be satisfied with their work if they feel more comfortable and if the management is fair and care about them (Atkins et al., 1996). The clients of the care service also likely are satisfied if they perceive that they received quality health service. Although the measurement of quality by the clients perspective is different based on the individual needs of the different client, there are six generally accepted dimensions of quality. These are Safety, effectiveness, patient centered, timeliness, efficiency, and equitable (National Health Care Quality Strategy, 2016 to 2021).

To achieve the health care industry's client satisfaction and improve performance, a number of factors made it difficult in different ways. Increased health literacy of the community,

innovation and technology, radical change in the cost of health care services and competition among health care service provider are among the factors. The factors for job satisfaction like salary, management system, and development opportunity have major role in client satisfaction. Some studies also showed that there is no direct linkage between employee and client satisfaction. Therefore, in order to monitor health care service quality, the assessment of client satisfaction is commonly used as indirect method (Beyazin. etal. 2017).

1.2. Statement of the Problem

Client and Job satisfaction are the growing issues of the health sector in the world as well as in Ethiopia. The satisfaction of the clients on the health care service is considered as one of the most important outcomes of health system which is directly related to service utilization. In recent times, the health care service utilization in the public health facilities becomes problematic even in services that are provided without fee. A study conducted in India showed that the level of job satisfaction among health professionals was 60% and that of client satisfaction was 48% (Ritesh. et.al. 2019). Hospital-level studies conducted in Ethiopia showed a low level of client satisfaction. Ethiopia targeted to improve the client and employee satisfaction as part of improving health care service quality, which aligned with the second Health Sector Transformation Plan (HSTP II). In addition, most studies try to know job satisfaction among health professional working in health care facilities mostly in Hospital. However, in the health care facility there are non-health professionals who have a major role in institution performance including better client satisfaction. Moreover, client satisfaction becomes a concern of the health service delivery system in Ethiopia. Another studies in Ethiopian different hospitals showed a satisfaction level ranging from 22% to 82% (Henok, 2021 and *Fekadu*, 2015). Hospital-level studies conducted in Ethiopia showed a low level of client satisfaction. But there are no enough studies that showed the link between. The preference of clients to use public health facilities is lower than private health facilities. This

is due to the satisfaction level by the services provided in the health care facilities (Wodaje, 2022).

Different complains are heard through Medias and reports. Job satisfaction could be one of the potential reasons for the client satisfaction problem in the health care service delivery system. More over health is human right that everybody shall get equitably. But currently the service provision becomes source of inequity and good governance issues among different population groups. Therefore, this study is aimed at determine the health workforce and client satisfaction levels as well as the linkage between the two in public health centers in Addis Ababa.

1.3. Research Question

This study tried to answer the following question;

- What is the level of job satisfaction of employees in public health centers in Addis Ababa?
- What is the level of client satisfaction in public health centers of Addis Ababa?
- Is there an effect of employee satisfaction level on client satisfaction?

1.4. Research Objective

1.4.1. General Objective

- The general objective of the study is to determine the employee job satisfaction and client satisfaction and their linkage among public health centers.

1.4.2. Specific Objective

The specific objectives of this study include;

- To determine the level of job satisfaction in public health facilities/centers in Addis Ababa
- To measure the level of client satisfaction among the public health centers Addis Ababa
- To determine the effect of employee job satisfaction on client satisfaction among public health centers in Addis Ababa

1.5. Significance of the Study

The result of this study will help to design strategies that can improve client satisfaction in health care service delivery. An understanding of the level of employee satisfaction and their effect on and client satisfaction and attempts to foster those attributes of care, have the potential to improve the health care service quality. The finding of this study will support the facility and administration level manager to take appropriate interventions to reduce the negative effect of employees to the client's satisfaction. In addition, there are not enough evidence about the link employee and client satisfaction in Ethiopia at least with researcher's knowledge. Moreover the study will include the supportive staffs working in public health facility. Therefore, it will inform the health care system to design strategy for improvement of employee satisfaction and reduce its effect on client satisfaction.

1.6. Scope of the Study

This study covered the employee satisfaction and its effect on client satisfaction in public health centers of Addis Ababa in Lideta and Nefas Silk Lafto sub-cities, which were randomly selected by a simple lottery method. These two sub-cities can represent the city administration because all health centers have the same structure and workforce as well as other responsibilities and all are regulated by the same regulation that is civil service rules.

1.7. Definition of Operational Terms

The study uses the following definition for operational purposes.

Employees: Is all health care center staff including health professionals. It can be used interchangeably with health workforce for this study.

Client: In this study, the client implies all customers who attend the health facility for any health care service.

Job satisfaction: a positive response of the employee towards their work or job.

Client satisfaction: the positive response of client's towards service they got from the health facility

Public health centers: In this study public health centers means health centers. The term health center will be used as the based on the current facility registration standard of the country.

1.8. Organization of the Study

This study report is organized in to five chapters. Chapter one includes introduction; back ground of the study, statement of the problem, significance of the study, scope of the study, definition of operational terms, and organization of the study. Chapter two contains mainly review of related literature, variables and conceptual framework.

Chapter three also deals with research methodologies, which include research design, description of study variables, description of the study area and target population, sampling technique/methods and sample size, data collection and analysis, reliability and validity analysis, and ethical consideration. The result part addressed in chapter four whereas Discussion, Conclusion and recommendations addressed under chapter five

Chapter Two: Review of Related Literature

2.1. Related Literature

Among the major complex issue, that today's managers are facing in managing their employee is employ satisfaction. Employee satisfaction has large impact on employee motivation whereas the level of motivation has impact on the productivity of employee and organizational performance as a whole (Brikend, 2011). In the healthcare industry, the behaviour of the employee and the service provided by the employee would greatly affect the client/customer satisfaction. Therefore, for the good performance of the health facilities, the health sector leadership should focus not only on physical infrastructure, but on also providing quality services with competent health workforce (Dr. Ritesh, 2019).

Different studies conducted regarding job satisfaction in health care professionals of different setup globally and in Ethiopia with different packet areas, administrative regions, and health facility levels. There are not enough studies found regarding job satisfaction with the concept of a healthy workforce in general and the studies that show the link between job satisfaction and client satisfaction are limited in Ethiopia.

Based on the pocket studies conducted in Ethiopia regarding the job satisfaction there were difference among private and public hospital health care professional in level of job satisfaction. In both cases, job satisfaction level among health professionals was low and it was lower in public hospitals compared to private owned hospitals. This study showed that the adequate supportive supervision, working at private hospital, pleasant nature of work, autonomy, good recognition, and high commitment were the factors for job satisfaction (Amare, 2021).

Although the researches are not adequate, one study conducted in Serbia showed that the link between the job satisfaction of health professionals and client satisfaction were low. However, there is one factor, which has correlation with patient satisfaction that is the time

worker completes their job (Janicijevic, 2013). Another study conducted in Ghana showed that year of experience, gender, and age has no effect on the job satisfaction whereas recognition and personal relations at work place are good predictors of job satisfaction (Ben Smith, 2013).

From different findings, possible variables (independent variables) are salary, reward and recognition, opportunity for development, participation in decision-making, and variety of work. The direct dependent variable is job satisfaction. The level of job satisfaction will affect the client satisfaction expected to be served by the employee. According to a study conducted by Hoseong Jeon of Hallym University, Chuncheon, Korea, and Beomjoon Choi of California State University, Sacramento, California, USA in education sector, the relationship of employee and client satisfaction is unilateral that means employee satisfaction has a positive effect to the client satisfaction but not viscera (Hoseong, 2012). The other studies also showed that employee satisfaction has a linkage with organizational performance. Client satisfaction is also one of the criteria for organizational performance (Barween, 2020). On the other hand, some studies argue that the relationship between employee satisfaction and client satisfaction is very weak and has almost no effect (Janicijevic, 2013).

2.2. Conceptual Framework

To assess the client's satisfaction level and the link with employ satisfaction the conceptual frame work developed (adopted) from literatures as shown below in figure 1. In this regards the level of employ satisfaction will affect the client's satisfaction level. In additional socio demographic characteristics of the clients will also affect the level of satisfaction with the health care provided in the facilities (health centers in this case).

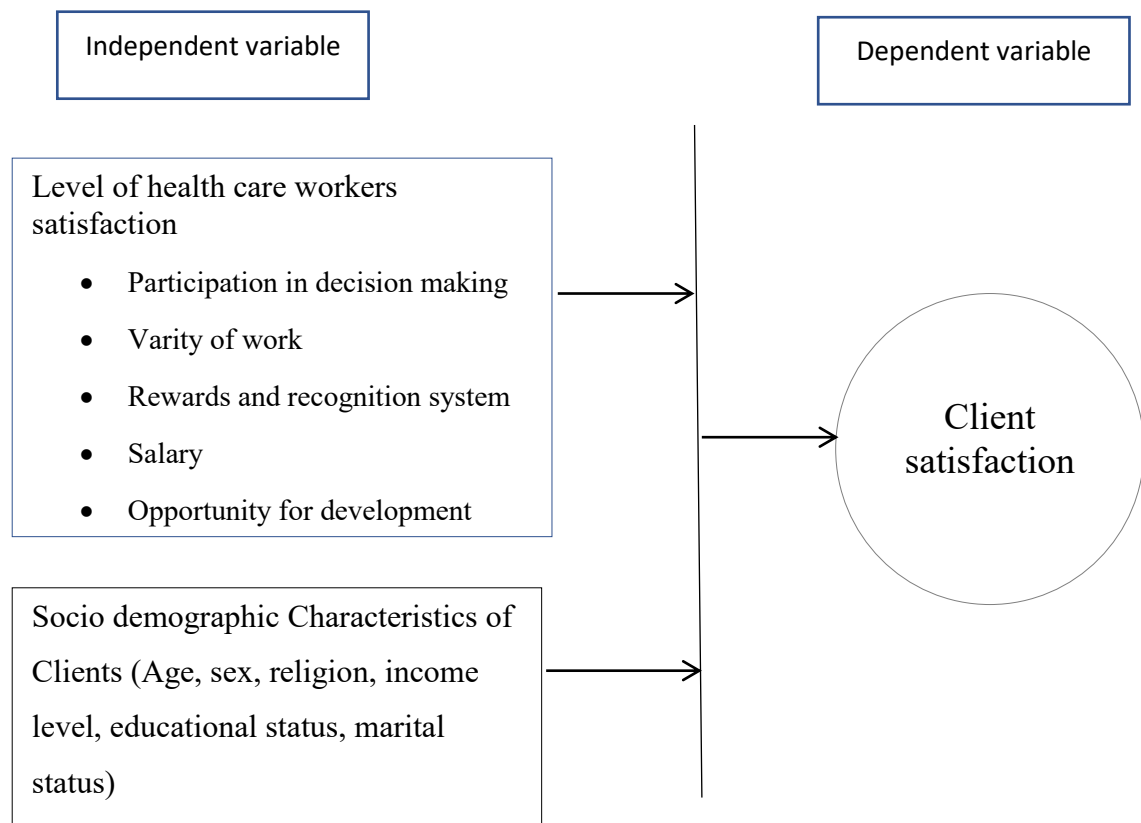


Figure 1: Conceptual framework adopted from literatures

(Source: Dr. K.S. Rao. etal. 2019 and Amare G. etal, 2021)

Chapter Three: Research Methods and Materials

In this chapter the research design, study variables, sampling technique and sample size determination, data collection and analysis method, study reliability and validity, and ethical consideration are addressed.

3.1. Research design

A cross sectional facility based analytical study among the health workforce was conducted in Addis Ababa City Administration, Lideta and Nefas Silk Lafto Sub Cities from April 2022 to June 2022.

3.2. Description of study variables

In this study the main variable is employee satisfaction which the dependent variable. The study tried to determine the effect of employee satisfaction on client satisfaction in the health center level in Addis Ababa city administration.

The two main variables are job satisfaction of employ and client satisfaction. Job satisfaction may be determined by different factors. Reward is anything that is given in recompense for desired behaviour. It can be either in cash or in kind, a recognition, praise and recommendation. Employees who are rewarded for desired or positive behaviour feel good about them and thrive to exhibit that behaviour that is rewarded. When organizations reward employees, they are telling them of their appreciation and encouraging them for more of such behaviours. When employees are rewarded adequately for jobs well performed, they tend to show very positive behaviour and remain in their organizations. Adequate supervision from the immediate supervisor as well as from the manager expected to bring motivation as well as positive perception about once role in the organization.

Opportunity for personal development Employee talent development opportunities are situations that help employee to add value to him or themselves through the support of the organization he or she works. Providing training and support services to employees enhances their skills and abilities and makes them marketable to compete with their colleagues and to have opportunities for promotions in the job. When there is an opportunity for personal advancement and growth, employees tend to stick with their organizations to develop their careers and ensure the achievements of organizational goals and objectives.

Another important variable in job satisfaction is a culture of participation in organizational decision-making processes. Having a real say in the decision-making process can be personally satisfying and contribute to the sense of involvement and identification with the company. The physical work environment can make an employee hate to wake up in the morning. It should be comfortable, well-ventilated, well-lit, appropriate temperature, adequate privacy, attractive, and well coming.

Client satisfaction (in this case dependent variable) is the happiness of service customers towards the health care services provided by the health center. This variable may be determined by different factors including employee satisfaction.

3.3. Description of study area and target population

The study was conducted in Addis Ababa City Administration health centers. Two sub cities were selected randomly from the 11 sub cities. The city administration have 101 health centers. From the selected sub cities, all health centers 16 were included in the study. The employee and clients were selected based on simple random sampling method. By taking the average clients served by a single health care worker per day as 20, a lottery method was used to select a client respondent just by ordering 1 to 20. All health care service units were included.

3.4. Sampling Technique and Sample Size

The sample was selected based on simple random sampling technique. The Lideta and Nefas silk Lafito sub cities were selected by simple lottery method by assuming that there will not be difference among the sub cities interns of the study subject. All health centers were included in the study. Among the health centers the health care workers were selected using systematic random sampling technique. In this regard only health care professionals were included.

The sample size was determined based on the two-population proportion sampling method.

$$n_i = \left\{ p_1(1 - p_1) + p_2(1 - p_2) \right\} \left(\frac{Z}{E} \right)^2$$

Where: n : is the minimum sample size required for each population, Z/E is the standard normal variable at $(1-\alpha)$ % confidence level (α is 0.05 with 95% CI, $Z_{\alpha/2} = 1.96$), P_1 is an estimate of the proportion of health care workers satisfaction level (50%), P_2 is an estimate proportion of client satisfaction and d is the margin of error (5%). Therefore, the sample size will be 571 employees and 571 clients.

3.5. Data collection

Data was collected using a self-administered questionnaire for the health workforce and clients were interviewed using structured questionnaire. The standard questionnaire was used to collect the data obtained from client of excellence for health for client satisfaction and Zarca Interactive for employ satisfaction. The data collected were being checked for the data quality particularly completeness and validity.

3.6. Data analysis

The collected data were analysed using SPSS V20. The analysis used the descriptive, bivariate and multi variant regression analysis to understand the level satisfaction and factors that determine job satisfaction and level of effect of employee satisfaction on the client satisfaction.

3.7. Reliability and validity analysis

The supervisors and data collectors were checked data completeness and consistency every day before leaving the institution and throughout the data collection, data entry and analysis. Data were coded and entered into a Microsoft Excel spread sheet and analyzed with SPSS version 20 software. Frequency distribution and percentage done for selected variables. In addition, regression analysis for effect determination was conducted.

3.8. Ethical Consideration

The participant's information is confidential only for the investigator and data collectors. In this research study, issues relating to the ethical conduct of research such as informed consent, confidentiality, privacy, and anonymity will be upheld. Participants were given full information on the purpose and objectives of the study in order for them to make informed decisions as to whether to take part or not. Moreover, all information concerning the identity and personality of respondents were treated with the utmost confidentiality. Additionally, they were assured that all information gathered would be for the sole purpose of this research study. The participants also requested their consent to participate in the study; only participate if they are volunteers.

Chapter Four: Result and Discussion

4.1. Descriptive analysis

4.1.1. Socio Demographic Characteristics

In this study, 564 employees and 564 clients were participated with the response rate of 98%.

As shown from table 1 above, 51.2% of employ participants were male and 48.8% were female. About 63% of employee respondents were married and 29.6% were single.

Table 1: Sociodemographic characteristics of the employ respondents (n=564)

	Variable	Frequency	Client n (%)
Sex	Male	289	51.2
	Female	275	48.8
	Total	564	100.0
Age	18 -29	133	23.6
	30-39	373	66.1
	40+	58	10.3
	Total	564	100.0
Marital status	Married	355	62.9
	Single	167	29.6
	Divorced	18	3.2
	Separated	18	3.2
	Windowed	6	1.1
	Total	564	100.0
Religion	Orthodox	370	65.6
	Muslim	140	24.8
	Protestant	42	7.4
	Others	12	2.1
	Total	564	100.0
Educational level	Diploma	188	33.2
	First Degree	342	60.6
	Above first degree	34	6.0
	Total	564	100.0
Profession	Nurse	80	14.1
	Pharmacy	134	23.7

	Laboratory	131	23.1
	Physicians/HO&MD/	149	26.3
	Midwife	70	12.7
	Total	564	100.0
Work experience in years	<1	40	7.1
	1 to 5	222	39.4
	6 to 10	266	47.2
	More than 10	36	6.4
	Total	564	100.0
Department	OPD	163	28.9
	Laboratory	82	14.5
	pharmacy	81	14.4
	Emergency	56	9.9
	Injection	69	12.2
	Triage	35	6.2
	RH	72	12.8
	Total	564	100.0
Monthly salary	1000-3000	12	2.1
	3000-6000	169	30.0
	6000-10000	383	67.9
	>10000	0	0
	Total	564	100.0

Sixty six percent (66%) of the employ were between the age group of 30 to 39 years. The majority (60.6%) of health care workers participated in this study were first-degree holders whereas the above first-degree holder accounts the lowest proportion with 6%. Regarding the work experience, those who have 6 to 10 years of experience account highest proportion with 47.2% followed by those who have 1to 5 years of experience, which accounts 39.4%.

Table 2: Sociodemographic characteristics of the client respondents (n=564)

	Variable	Frequency	Client n (%)
Sex	Male	247	43.8
	Female	317	56.2
	Total	564	100.0
Age	18-29	117	20.7
	30-39	341	60.5
	>=40	106	18.8
	Total	564	100.0
Marital status	Married	231	41.0
	Single	235	41.7
	Divorced	34	6.0
	Separated	53	9.4
	Windowed	11	2.0
	Total	564	100.0
Religion	Orthodox	273	48.4
	Muslim	186	33.0
	Protestant	70	12.4
	Others	35	6.2
	Total	564	100.0
Educational level	No education	71	12.6
	Read and write	89	15.8
	Primary	92	16.3
	Secondary	173	30.7
	Higher education	139	24.6
	Total	564	100.0
Employment status /job	Government employed	273	48.4
	Private Company	186	33.0
	Own Business	70	12.4
	Other	35	6.2
	Total	564	100.0
Monthly income	<1000	35	6.2
	1000-3000	112	19.9
	3000-5000	196	34.8
	>5000	221	39.1
	Total	564	100.0

As shown from table 2 above, 43.8% of client participants were male and 56.2% were female. Nearly sixty one percent of the client participants were between the age group 30 to 39 years old. Forty eight percent (48.4%) percent of the client respondents were government-employed whereas as about 33% of them are employed in private owned organization. About 74% of the clients participants attend primary education and above.

Table 3: Job related characteristics of the employee (N= 564)

Variable		Number(n)	Percent (%)
Job description	Yes	402	71.3
	No	162	28.7
Short-term training	Yes	474	84.0
	No	90	16.0
Annual leave	Yes	456	80.9
	No	108	19.1
The nature of your work	Pleasant	381	67.6
	Unpleasant	183	32.4
The workload	High	374	66.3
	Low	190	33.7
Work environment	Safe	444	78.7
	Unsafe	120	21.3
Relationship with co-workers	Good	473	83.9
	Poor	91	16.1
Organizational implementation policy and strategies	Comfortable	387	68.6
	Uncomfortable	177	31.4
Performance appraisal system in place	Yes	452	80.1
	No	112	19.9
Recognition and reward system	Yes	402	71.3
	No	162	28.7
The supportive supervision practice	Adequate	413	73.2
	Not adequate	139	24.6
Educational opportunity for the development of employees	Yes	367	65.1
	No	197	34.9

Pay and benefits system	Fair	334	59.2
	Unfair	230	40.8

When we see the job related characteristics of the employee respondent; 71.3% of the health care workers respond that they have clear job description whereas the remaining 28.7 % do not have clear job description. Off the total 564 health care workers participated in this study 474 (84%) have at least one short-term training whereas the remaining 16% did not have get any short-term training.

Eighty four percent of the participant health care workers have good relation with their co-workers and 68.6% of them are comfortable with the organization policy and strategy implementations. Although the recognition and reward system is available, significant proportion (40%) of the employee, believe that there is unfair benefit and pay system in the organization. More than seventy three percent (73.2%) of the participants believe that there is adequate supportive supervision from their immediate supervisor.

4.1.2. The level of satisfaction of Employee and clients

The level of satisfaction of the employees (health care workers) was assessed using 34 detailed assessment question and that of client was assessed using 10 assessment question by five level Likert scale containing the strongly disagree, Disagree, Neutral, Agree and Strongly Agree. To determine the satisfaction level the average score of the Likert scale was used as a cut point to determine overall satisfaction of the health worker as well as the client. The average value was included to the satisfied category. As shown in the table below 55% of the employ were satisfied based on the assumption and assessment whereas 61.7% of the client were satisfied.

Table 4: Proportion of satisfied employees and clients in the Public health center of Lideta and Nefas Silk Lafto Sub city, Addis Ababa (n=564)

Satisfaction	Employee satisfaction				Client satisfaction			
	Frequency	Percent	95% CI		Frequency	Percent	95% CI	
			Lower	Upper			Lower	Upper
Yes	310	55.0	50.5	59.0	348	61.7	58.0	65.6
No	254	45.0	41.0	49.5	216	38.3	34.4	42.0
Total	564	100.0	100.0	100.0	564	100.0	100.0	100.0

The level of employ satisfaction was measured in detail with four major thematic areas; organization related (mission, vision, policy, and strategy clarity and implementation); Availability and quality of material necessary for their job, supports provided by immediate supervisor, and payment (Salary) incentives were included. The measurement of satisfaction used was five point scales (Very Dissatisfied, Dissatisfied, neutral, satisfied and very Satisfied). From the four thematic areas apyment9salary) and incentive (Salary, Bonus, Carrier, vacation time, medical insurance, process and annual pay raise) was the list in rate of satisfaction with an average of 1.5 from the 5 point scale.

Table 5: Level of employ satisfaction in the four thematic areas with five point scale among health care workers in Addis Ababa City Administration (N=564)

SN	Thematic area	Mean score	Std. deviation	
1	Organization related (Mission, vision, strategy) clarity and implementation	3.8	1.4	
2	Availability and quality of material necessary for their job	3.9	1.2	
3	Support with immediate supervisor	3.7	1.4	
4	Incentives (Salary, Bonus, annual raise, medical insurance, annual leave) and the process	1.5	0.87	
	Overall	3.2	1.22	

Key; 1= Very dissatisfied, 2=Dissatisfied, 3=Neutral, 4=Satisfied, Very Satisfied

As shown from table 5 above, employs were very dissatisfied in regard to their salary, bonus, medical insurance, annual leave and process of incentives fairness. On the other hand the employs of the selected health centers were relatively satisfied with the availability of material necessary for daily job.

4.2. Regression Analysis

4.2.1. Bivariate and Multivariate regression analysis

Once the level of satisfaction of clients and employee were analysed, the age, sex, religion, marital status, educational status, occupation, monthly income level of client and employ satisfaction were analysed using bivariate analysis method against client satisfaction to assess factors of client satisfaction. Only sex and religion were not showed significate association with client satisfaction with the bivariate analysis. The remaining variables; age, educational status, income level, occupation, marital status, and employee satisfaction which showed significant association with client satisfaction in the bivariate analysis, further anlysed using multi variate regression analysis method (table 6).

Table 6: Bivariate and Multivariate regression analysis of factors for client satisfaction in Addis Ababa City Administration, 2022

Variable	Category	Client satisfaction		COR [95%CI]	AOR [95% CI]	Sig. (p value)
		Yes	No			
Age of client	18-29	64 (54.7%)	53 (45.3%)	1	1	.000
	30 – 39	182(53.4%)	159(46.6%)	0.874 [0.706, 1.081]	0.222[.098, 0.502]	.000
	>40	64(60.4%)	42(39.6%)	0.656 [0.445,0.969]	0.091[0.033, 0.251]	.000
Marital status of a client	Married	105(45.5%)	126(54.5%)	1	1	0.002
	Single	141(60%)	94(40%)	1.200[0.926, 1.555]	0.409[0.247, 678]	0.001
	Divorced	24(70.6%)	10(29.4%)	0.667[0.514, 0.865]	1.785[0.709, 4.493]	0.219
	Separated	29(54.7%)	24(45.3%)	0.417[0.199, .871]	0.455[0.217, .957]	0.038
	Widowed	11(100%)	0	0.828[0.482, 1.421]	0.000[]	.999
Education status	No formal education	35(49.3%)	36(50.7%)	1	1	
	Read and write	59(66.3%)	30(33.7%)	1.029[0.646, 1.638]	0.395 [0.180, 0.864]	0.020
	Primary Education	33(35.9%)	59(64.1%)	0.508[.328, 0.789]	2.181 [0.984, 4.834]	0.055
	Secondary education	117(67.6%)	16(32.4%)	1.788[1.168, 2.738]	0.228 [0.105, .496]	0.000
	Higher education	66(47.5%)	73(52.5%)	0.479[0.348, 0.658]	0.457 [.217,0.961]	0.039
Occupation of the client	Gov't employ	17(43.6%)	22(56.4%)	1	1	.000
	Private Company	103(59.9%)	69(401%)	0.670 [.494, 0.909]	0.450[0.231, 0.877]	.019
	Own Business	103(42.4%)	140(57.6%)	1.359 [1.054, 1.753]	2.082[1.064. 4.073]	.032
	Other (House wife,	87(79.1%)	23(20.9%)	0.264 [0.167, 0.419]	0.212[.089, 0.505]	.000

	Daily labour)					
Income in ETB	<1000	23(65.7%)	12(34.3%)	1	1	.000
	1000-3000	89(79.5%)	23(20.5%)	0.258 [0.163, 0.409]	2.471[1.890, 6.857]	.0082
	3000-5000	87(44.4%)	109(55.6%)	1.253 [1.0945, 1.661]	10.657[3.840, 29.577]	.000
	>5000	111(50.2%)	110(49.8%)	.991 [0.761, 1.290]	14.826[4.918, 44.669]	.000
Employee Satisfaction	Yes	229(65.8%)	81(34.2%)	1.667[1.265, 2.195]	2.1944 [1.441, 3.344]	0.0000
	No	81(37.5%)	135(62.5%)	1	1	

AOR; Adjusted Odd Ratio, COR; Crude Odd Ratio

From the bivariate analysis table 6 above, the client's socio demographic characteristics; age, educational status, income level, marital status, and occupational status and employs satisfaction status showed significance association for the client satisfaction.

The clients with age 30 to 39 years were 17% less satisfied in the health centers service compared to the clients with age 18 - 30 years (COR; 0.874 [0.706, 1.081] and the clients with age of >40 years 35% less satisfied than the 18 to 29 years old clients with COR of 0.656 [0.445, 0.969], p value less than 0.05. those client who completed secondary education were 78.8% more satisfied than clients who could not read and write (COR; 1.788[1.168, 2.738]). The employ satisfaction status was another factor based on bivariate analysis in which clients who got service with satisfied employ were 66.7% more satisfied than those served by non-satisfied health care workers (COR; 1.667[1.265, 2.195]). The entire list variable in the bivariate analysis has significance association in the multivariate analysis too. However, some categories of variable became less significant and no significant in the multivariate analysis.

Employee satisfaction effect on client satisfaction increased when analysed in multivariate analysis by which the client who received service with satisfied employee were 2.2 time higher than clients who received services by non-satisfied client with AOR; 2.1944 [1.441, 3.344], P=0.000.

The clients age also showed statistical significance in multi variant analysis; those clients whose age is above 40 years were 99% less satisfied than clients of 18 -29 years age group regardless of their sex and religion (AOR= 0.09; 95% CI = [0.033, 0.251], P=0.000). Marital status is also a statistically significant with satisfaction on health care services. Singles and Separated clients were much less satisfied when compared to married clients; AOR= 0.409, 95%CI= [0.247, 678], and P=0.001 and AOR= 0.455[0.217, .957], and P=0.038 respectively.

Being divorced have no significance difference when compared to married regarding satisfaction in the health care service provided at the public health centers of under study.

Being literate found to be a factor for satisfaction of client on the health care services provided in the health centers. Those clients who attended secondary education and higher education were less satisfied compared to those clients who do not attend any formal education; AOR= 0.228 [0.105, .496], P=0.000 and AOR=0.457 [.217,0.961], P=0.039 respectively with reference to clients of no formal education.

Clients who did not have permanent source of income (housewife, daily labourer) were 79% less satisfied when compared to those clients who were government employed (AOR; 0.212 95% CI [0.089, 0.505], p-value=0.0000). On the other hand clients who have their own business were 2.1time more satisfied compared to the government employed with AOR of 2.082, 95%CI[1.064. 4.073], and P value =0.032. Whereas private company workers were 55% less satisfied in the health care service they were provide at the time of the study with AOR=0.450, 95%CI [0.231, 0.877], and P value=0.019.

The other important variable which showed significant association was the level of monthly income of the clients. Those who clients have more than monthly income of 5000 ETB were 14 time more satisfied than clients who have a monthly income of less than 1000ETB with AOR;14.826, 95%CI; [4.918, 44.669]; P value of 0.000.

4.3. Discussion

In this study, 564 health care workers and 564 clients from 14 health centers were involved. Fifty-one percent (51.2%) of employee were males whereas among clients the majority i.e. 56% were females. The result showed that the only 55% of employees are satisfied with working in the current position whereas 61.7% of clients were satisfied with health centers service based on the cross sectional survey. When we compare employ satisfaction level of

this result with a study conducted in Western Amhara region which is 31.7% and a study conducted in western Ethiopia was 41.6% employ satisfaction, the employ satisfaction in Addis Ababa is much higher (Kalkidan, 2018 and Beyazin, 2017). On the other hand level of client satisfaction of this study was lower than the result of the study conducted in Hawassa University hospital (Anteneh et al, 2014). This difference could be due to the administrative and structural differences that can vary the payment and incentives from the health centers. But the result is almost similar with the finding of the study conducted on employ satisfaction assessment which showed 53.8% (Mesfin, et al, 2020).

The level of client satisfaction with the services provided by health care services in this study showed that proportions satisfied were 61.7% clients. This result is somewhat lower than the level result of a study conducted among Addis Ababa hospitals which showed 67.6% of clients were satisfied based on the same measurement (Fikirte et al. 2016). In addition the satisfaction level is much lower when compared with the 2014 performance report of the federal ministry of health of Ethiopia which is 77%. This difference is contradicted with the logical assumptions that urban residents have better access and quality health services compared to the rural residents.

The result showed that the client satisfaction was affected by the status of employ satisfaction. This result is inconsistent with the study conducted in Serbia on the health workers satisfaction and client satisfaction in which there was weak association between the two variables (Janicijevic et al, 2013). This difference could be due to difference in method of analysis. There is no published article or evidence that showed the relationship of client and employ satisfaction with the researcher's knowledge.

Age of the clients was also shown as a factor for client satisfaction in which the young were more satisfied than the elders. This result is similar with a result a systematic analysis

conducted by Bahirdar University (Henok, 2021). On the other hand it contradicts with the study finding conducted in Greek which showed that the elder patient is the more satisfied in the health care under study. This could be the difference in the country overall and health system context.

When we see the marital status of the clients, singles and separated clients showed less satisfaction level when compared to married ones. The result also showed that no difference between married and divorced with regard to satisfaction and it is also similar other study finding mentioned above (Henok, et al. 2021). This could be due to the lack of support from their partners that may have psychological impact. Regarding the income level there is no directly related article about this factor but different studies showed that health care service fee is one of a factor for client satisfaction.

The other important factor observed from the finding is that being literate was a negative factor for satisfaction with the health care they received in the selected health centers during the study period. This result is also similar with other findings studied in Ethiopia. The potential reason could be the more exposure for different information and technologies will create more expectation on the clients that will result in dissatisfaction with the actual experience of health care. The type of occupation the clients have was also a factor for satisfaction. Of all clients with their own business were more satisfied when compared to the government employed clients. In this regards, there is no evidence conducted as the researchers search.

Level of income also showed significance in this study but no directly related article about this factor but different studies showed that health care service fee is one of a factor for client satisfaction (Sofia, 2016). Therefore, the result of this study indirectly indicates the effect of service fee as the income level affects capacity to pay for the health career services.

Chapter Five: Summary, Conclusion and Recommendation

5.1. Summary of Findings

The result of this study showed that the level of employees satisfaction among health care workers in Addis Ababa City administration is low. Compared to majority of studies conducted in the hospital level. Similarly the client satisfaction level is also even though higher than the employee satisfaction.

The employees (health care workers) were more dissatisfied with related to payment (salary) and other incentives as indicated in table 5. They are relatively satisfied with the availability and quality equipments and materials they used for their daily activities. The employees satisfaction level was intermediate with regard to the adequacy and quality of their immediate supervisors support and organizational mission, vision and strategy issues.

Client satisfaction was also affected by the socio demographic characteristic of the clients them self. Level of income and health care workers satisfaction level were the variables that highly affect the level of client satisfaction according to the finding of this study.

5.2. Conclusion

From the finding of this study, the investigator concludes that significant proportion of health care workers working in the health center of Addis Ababa city administration was not satisfied on their job. Similarly significant proportion of clients who got service in the same health centers during the study period were not satisfied with the overall service they were provided with the health workers who participated in this study. Payment (salary) and other incentives were the major factors for the dissatisfaction of the health care workers.

The other important finding is that the status of the employ satisfaction highly affects the client satisfaction level. In addition educational status, client's income level, and occupation were factors to affect the client satisfaction.

5.3. Recommendation

The researcher recommends the following major points to improve client satisfaction; the health care system should work on improving employee satisfaction and service fee system that considers the capacity to pay for the community. In addition, health facilities should work on the service to implement simple and clear health care service flow of efficient triage and information desk. In addition to the health care provider's level of satisfaction, provision of clear information may improve satisfaction for clients who cannot read and write who may suffer to find out places of services within the facilities. The employs satisfaction was shown as highly significant in affecting the client's satisfaction. At the same time employs were very dissatisfied with the incentives and payments. Therefore health system administration should work on improving and designing incentive mechanisms as well as creating transparency in providing incentives for the health care workers. Providing the medical health insurance for the health care system atleast for service provided in Addis Ababa city administration health bureau level.

Reference

1. Abate, H. K. and Mekonnen, C. K. (2021) 'Job satisfaction and associated factors among health care professionals working in public health facilities in Ethiopia: A systematic review', *Journal of Multidisciplinary Healthcare*, 14, pp. 821–830. doi: 10.2147/JMDH.S300118.
2. Aklilu, M. et al. (2020) 'Assessment of Job Satisfaction Level and Its Associated Factors among Health Workers in Addis Ababa Health Centers: A Cross-Sectional Study', *Advances in Public Health*, 2020. doi: 10.1155/2020/1085029.
3. Anteneh, A., Andargachew, K. and Muluken, D. (2014) 'Patient satisfaction with outpatient health services in Hawassa University Teaching Hospital, Southern Ethiopia', *Journal of Public Health and Epidemiology*, 6(2), pp. 101–110. doi: 10.5897/jphe2013.0613.
4. Bempah, B. S. O. (2013) 'Determinants of Job Satisfaction among Community Health Workers in the Volta Region of Ghana', *Public Policy and Administration Research*, 3(11), pp. 1–11.
5. Biresaw, H. et al. (2021) 'Patient satisfaction towards health care services provided in Ethiopian health institutions: a systematic review and meta-analysis', *Health Services Insights*, 14. doi: 10.1177/11786329211040689.
6. Charania, P. et al. (2012) 'Identification of Variables Affecting Employee Satisfaction and Their Impact on the Organization Related papers A ST UDY ON JOB SAT ISFACT ION AMONG EMPLOYEES JOB SAT ISFACT ION Mani Ice The Southern Ice Ocean Model Intercomparison Project (SIOMIP Mani', *IOSR Journal of Business and Management (IOSR-JBM)*, 5(1), pp. 32–39. Available at: www.iosrjournals.org.
7. Deriba, B. K. et al. (2017) 'Health professionals' job satisfaction and associated factors at public health centers in West Ethiopia', *Human Resources for Health*, 15(1), pp. 1–7. doi: 10.1186/s12960-017-0206-3.
8. Dwivedi, R. and Anand, S. (2019) 'Interrelating employee satisfaction and customer satisfaction in the healthcare Industry', *International Bulletin of Management and Economics*, 10(February).
9. Fentie, D. Y., Ashagrie, H. E. and Kasahun, H. G. (2018) 'Job Satisfaction and Associated Factors among Anesthetists Working in Amhara National Regional State, Northwest Ethiopia, May 2017: A Multicenter Cross-Sectional Study', *Anesthesiology research and practice*, 2018, pp. 1–7.
10. Fujimoto, S., Sasa, M. and Takaori, S. (1981) 'Dopaminergic inhibition from substantial nigra of caudate neurons activated by cortical stimulation.' *The Japanese Journal of Pharmacology*, 31(6), pp. 1037–1042. doi: 10.1254/jjp.31.1037.
11. Gedif, G. et al. (2018) 'Level of job satisfaction and associated factors among health care professionals working at University of Gondar Referral Hospital, Northwest Ethiopia: A cross-sectional study', *BMC Research Notes*, 11(1), pp. 1–7. doi: 10.1186/s13104-018-3918-0.
12. Geta, A. et al. (2021) 'Job Satisfaction and Associated Factors among Health Professionals Working at Public and Private Hospitals in Bahir Dar City, Northwest Ethiopia: A Comparative Cross-Sectional Study', 2021.
13. Gietaneh, W. et al. (2022) 'Quality disparity in terms of clients' satisfaction with selected exempted health care services provided in Ethiopia: Meta-analysis', *Health Policy OPEN*, 3(April), p. 100068. doi: 10.1016/j.hpopen.2022.100068.
14. Gidey, A. B. et al. (2021) 'Magnitude of client satisfaction and its associated factors with outpatient pharmacy service at Dubti General Hospital, Afar, North East Ethiopia: A cross-sectional study', *PLoS ONE*, 16(November), pp. 1–11. doi: 10.1371/journal.pone.0260104.

15. Hailie, M. T., Hassen, S. L. and Temesgen, M. M. (2021) 'Client satisfaction on community-based health insurance scheme and associated factors at Boru Meda Hospital, Northeast, Ethiopia: an institutional-based cross-sectional study', *BMC Health Services Research*, 21(1), pp. 1–8. doi: 10.1186/s12913-021-07223-4.
16. Janicijevic, I. et al. (2013) 'Healthcare workers satisfaction and patient satisfaction – where is the linkage?' pp. 157–162.
17. Jegadeesan, G. (2007) 'Job Satisfaction : A Conceptual Framework', (September), pp. 53–61.
18. Jeon, H. and Choi, B. (2012) 'The relationship between employee satisfaction and customer satisfaction, *Journal of Services Marketing*, 26(5), pp. 332–341. doi: 10.1108/08876041211245236.
19. Manyazewal, T. (2017) 'Using the World Health Organization health system building blocks through a survey of healthcare professionals to determine the performance of public healthcare facilities', *Archives of Public Health*, 75(1), pp. 1–8. doi: 10.1186/s13690-017-0221-9.
20. Organizations, L. (2004) 'Job Satisfaction Survey Report 2004 Job Satisfaction Survey Report 2004', pp. 8–9.
21. Safe surgery strategic plans (2017) 'Federal Ministry of Health of Ethiopia National Safe Surgery Strategic PLAN'.
22. Smith, B., Bempah, O. and Corresponding, P. D. (2013) 'Determinants of Job Satisfaction among Community Health Workers in the Volta Region of Ghana', 3(11), pp. 1–12.
23. Temesgen, K., Aycheh, M. W. and Leshargie, C. T. (2018) 'Job satisfaction and associated factors among health professionals working at Western Amhara Region, Ethiopia', *Health and Quality of Life Outcomes*, 16(1), pp. 1–7. doi: 10.1186/s12955-018-0898-7.
24. Teshome Kassa, R. (2019) 'Clients' Satisfaction Level toward Health Care Service in Selected Addis Ababa Hospitals, Ethiopia, 2016', 9(1), pp. 1–4. doi: 10.4172/2167-1079.1000320.
25. Yuxin, W. and Farooq, M. (2019) 'Conceptual Framework Development for Job Satisfaction in Fujian Banking Industry, China', *International Journal of Human Resource Studies*, 9(1), p. 253. doi: 10.5296/ijhrs.v9i1.14356.
26. Zeuch, M. (2016) *Handbook of human resources management, Handbook of Human Resources Management*. doi: 10.1007/978-3-662-44152-7.