

Full Length Research Paper

Client satisfaction among private wing and regular health care services at Nekemte Referral Hospital, East Wollega Zone, Oromia regional state, Western Ethiopia: A comparative cross-sectional study, 2016

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The level of client satisfaction with the services provided by the hospitals is one critical area that must be assessed continuously. There is the paucity of information on the comparison of the level of client satisfaction from regular and private wing services of public hospitals in Ethiopia. Thus, the current study aims to compare the level of clients' satisfaction in the adult outpatient department among private wing and regular clients and related factors at Nekemte Referral Hospital. Comparative cross-sectional study was conducted from May 20 to June 30, 2016. Data were collected from 406 participants and analyzed using SPSS version 20. Exploratory factor analysis was employed for statistical analysis. The overall client satisfaction was 58.16 and 68.84% at regular and private wing, respectively. Staff services, accessibility of healthcare services, physical facility, provider behaviour, type of visit, travel time, marital status, and educational status and how respondents visited the hospital were found to be independent predictors of client satisfaction. Besides, there was no statistically significant mean overall levels of client satisfaction difference between regular and private wing outpatient department. Hence, the hospital management should work towards improving staff services, accessibility of health services, physical facility, and provider behaviour.

Key words: Comparative study, client satisfaction, regular client, private wing, Nekemte Referral Hospital.

INTRODUCTION

The measure and management of patient satisfaction have become a top priority at health systems across countries (API Healthcare Corporation and GE Healthcare Company, 2015). Measuring and managing

client or patient satisfaction have become an integral part of hospital management strategies across the globe. In most countries, measuring the level of client satisfaction on regular basis are used in quality assurance and

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accreditation process (Guide to measuring Client satisfaction, 2000). To meet the ever-increasing needs and demands of their patient population, healthcare industries like hospitals are shifting their views from considering the patient as uneducated who chose the least healthcare to recognize them as an educated consumer, those demanding many services with having healthcare choices (Howard, 2000).

A working definition of patient satisfaction is the degree to which the patient's desires, expectations, goals and/or preferences are met by the healthcare provider and/or services (Debono and Travaglia, 2009). It is also defined as an expression of the gap between the expected and actual provision of a service. It is a component of healthcare quality which is increasingly being used to assess medical care in many countries of the world. Satisfaction is a subjective phenomenon and could be elicited by simply asking whether the patients are satisfied or not by the service delivery (Peter, 2004).

Many African countries are undergoing civil and public service reforms as well as health sector reform. These involve the restructuring of the sector and the creation of new systems, procedures, and functions that are expected to promote efficiency and responsiveness (Dan, 2006). In June 1998, the Ethiopian Federal Ministry of Health (FMOH) launched successive health financing reform. One of the outcomes of the reform was the establishment of private wing (PW) facilities inside the premises of public hospitals starting from 2008 with an objective of improving health workers' retention, providing alternatives and choices to private health service users, and generating additional income for health facilities. This program has benefited a number of patients who have rare access to high-level medical services (Caitlin and Nirali, 2013). PW is established both at hospitals and health centers for providing services to those who can afford to pay more for those services. It is meant for regular improvement of quality services and timeliness of service, especially on weekends (Ethiopia Health Sector Financing Reform Midterm Project Evaluation, 2011).

Measuring client satisfaction is desirable for any service delivery organization because it provides invaluable insight into clients' intentions to revisit a service (Caitlin and Nirali, 2013). In health service organization, studies indicated that a satisfied client/patient has complied with the medical treatment prescribed, provider recommendation delivered, and continually using medical services at a specific health provider. This in turn, could result in enhanced disease healing process, healthier and happier patients who can contribute to the development of the country (Ofili and Ofovwe, 2005; Andaleeb et al., 2007; Patavegar et al., 2012).

Hence, the level of patient satisfaction towards the services provided by the hospital is the critical area that must be assessed continuously (Institute NBr, 1982). The data gathered through measuring patient satisfaction reflects care delivered by staff and physicians. It can also serve as a tool in decision-making Linda and MSIPT

(2001). Various studies indicated that the patient's dissatisfaction factors includes: overcrowding, cost of treatment, lack of drugs and supplies, physical environment (cleanliness of toilet and examination rooms), courtesy and respect, waiting time, provision of information about hospital services, maintenance of privacy, difficulty to locate different sections, laboratory procedures and re-visiting of the Doctor for evaluation with laboratory results (Gary, 1998; Olijera and Gebresilasses, 2001; Mitike et al., 2002; Girmay, 2006; Abdosh, 2006; Birhanu et al., 2010; Agumas et al., 2014; Gamo et al., 2015; Iliyasu et al., 2010; Mezemir et al., 2014; Assefa et al., 2014; Assefa et al., 2011).

At the private wing, the patients have the opportunity to choose their own health personnel, especially doctors. They are also expected to be satisfied by the improved services given at this unit than the regular outpatient. Consequently, a private wing outpatient department (PWOPD) is giving service for the community at Nekemte Referral hospital currently. In this hospital, there is a paucity of information on the level of client satisfaction who attends adult outpatient departments of both regular and private wing clients. Thus, the aim of this study was to compare the level of clients' satisfaction with the healthcare service delivery at adult outpatient departments among private wing and regular clients'.

MATERIALS AND METHODS

The study was conducted from May 20 to June 30, 2016 in Nekemte Referral Hospital, which was established in 1932 by Swedish Missionaries at Oromia regional state, West Ethiopia. During the study period, it was the only government-run hospital serving as a referral center in Western part of Ethiopia for more than 2.5 million people. There were 168 different technical and 84 non-technical staffs. Besides, the hospital had 178 beds (A printed information gained from the Hospital service (Unpublished), 2015). The hospital-based comparative cross-sectional study was conducted on 271 and 135 clients attending regular and private wing OPD services, respectively.

The required sample size was determined by using two population proportion formula based on the assumptions that α (level of significance) 5% = 1.96 and β (the probability of getting a significant result) 80% = 0.842. In addition, P1 (the proportion of client/patient satisfaction in private wing) is 72.7% (Fasika, 2013) while P2 (the proportion of client/patient satisfaction in regular) is 57.7% (Mezemir et al., 2014). For P1, a 15% difference is assumed between the private wing and regular client satisfaction, because there was no previous study on private wing outpatient department (PWOPD) client satisfaction. On the other hand, d (Marginal error) 5% = 0.05 is assumed while 10% of the calculated sample size was added to compensate non-responses. Then, EPIINFO.7 was used to calculate the sample size based on the aforementioned assumptions. Hence, sample size n_1 (for private wing) = 135 and n_2 = 271 (for regular). Then a total of 406 samples were included in the study through systematic random sampling. All clients (≥ 18 years) attending the adult OPD were included while clients who were staff of the study hospital (to avoid or minimize response bias, who had mental problems, those that needed emergency attention and unable to respond due to their illness, who would have an appointment for revisit and not finished the entire process to gate services for that day) were not included in this study.

A structured questionnaire was developed for the purpose of data collection after reviewing relevant literature (Patavegar et al., 2012; Girmay, 2006; Agumas et al., 2014; Gamo et al., 2015; Mezemir et al., 2014; Assefa et al., 2014; Assefa et al., 2011; Asma et al., 2008; Mao, 2012). The questionnaire was prepared in English, and then translated into Afaan Oromo and back to English to ensure consistency. Finally, the Afaan Oromo version was used for data collection. Sixty-five (27 questions with different alternatives and 38 Likert type items) were used to achieve the objective of the study. The items with Likert scale type are scored on a 5-point scale ranging from 1- "strongly disagree" to 5- "strongly agree". In addition, trained data collectors, under the supervision of two BSc nurses gathered data through face-to-face interview after the clients received services.

The dependent variable of the study is client satisfaction while the independent variables are socio-demographic characteristics, client's perception concerning healthcare services and accessibility to healthcare services. Each of these three independent variables has their own sub-categories. The socio-demographic characters include sex, age, marital status, education, occupation, monthly family income, residence, religion, client department, and ethnicity. The client's perception concerning healthcare services consists of provider's behavior and services, pharmacist's services, staff's services, privacy and confidentiality, availability of services, laboratory and radiological services, physical facilities and type of visit. Accessibility to healthcare services, on the other hand includes distance from the hospital, traveling time, service procedure, waiting time, and cost of care.

Operational definitions: Regular OPD - the unit in the hospital where the medical services are provided to the clients during the work hours, and days (from 8:30 am to 5:30 pm and not included the weekend), Private wing OPD - an extension within a hospital where medical services are provided to clients out of the normal work hours (after 5:30 pm and the weekend), clients who complete entire process-patients who get all services delivered at OPD for which he/she is coming that day and waiting time - the interval between departures from registration for outpatient service and seen by a doctor (That is at waiting station of the private wing and regular OPD).

Data were entered into Epi Data 3.1 and exported to SPSS version 20 for the analysis. Data was cleaned by looking at the distribution of the data, identification of outliers and checking against the original data before final analysis. Next, exploratory factor analysis was done. The appropriateness of the data was checked by using the Kaiser-Meyer Olkin (KMO) for the measure of sampling adequacy (MSA), and Bartlett's test of Sphericity was used before presenting the result of factor analysis.

Statistical method

Simple linear regression analysis was carried out to identify determinants of outpatient satisfaction. Analysis of variance for comparing responses from the private wing and regular respondents was conducted. A significance level of 0.05 was used in all cases. Overall client satisfaction was measured by taking the average individual clients percentage mean score. KMO of clients' perception about the quality of healthcare service was 0.748 for the regular outpatient department (ROPD) and 0.820 for the private wing outpatient department (PWOPD). Both fulfilled the minimum requirement of 0.50 measure of sampling adequacy and Bartlett's test of sphericity was significant at less than 0.05, indicating a sufficient sample size and appropriate correlation matrix for factor analysis. Factor one, two, three, four and five at the ROPD had 0.915, 0.804, 0.791, 0.736 and 0.701 Cronbach's alpha coefficients, respectively. There is one unrotated factor of satisfaction with 0.978 Cronbach's alpha coefficient. In the case of PWOPD, factor one, two, three, four and five had 0.948, 0.814, 1.00, 0.643 and 0.714

Cronbach's alpha coefficients, respectively which are within the minimum acceptable level of 0.6 (factors noted below). All variables are loaded into five components and named according to the items they contained. So, factor one, two, three, four and five were named as Providers' behaviour, Staff's services, Accessibilities of services, Physical facilities and Availabilities of services at ROPD. On the other hand, the five components loaded at PWOPD are named as Providers' behavior, Physical facilities, Latrine related, Accessibilities of services, and Availabilities of services, respectively. Besides, there is one unrotated factor of satisfaction to the services at both regular and private wing outpatient department which is named as satisfaction.

RESULTS

Socio-demographic characteristics of the respondents

A total of 401 (response rate of 98.5%) clients were included in this study, of which 268 were from regular and 133 were from the private wing. The mean age of the respondents at regular and private wing outpatient department is 35.68 (± 11.69) and 36.67 (± 14.50) years, respectively. Most of the respondents are male (61.9% at regular and 55.6% at private wing) (Table 1).

How respondents visited the hospital and type of visit

More than half (56.0%) respondents from regular outpatient and (59.4%) of private wing client visited the hospital by their personal decision (Table 2).

Type of client visit at the hospital

There are two types of client visit at the hospital - new and repeat visitors. In the PWOPD, the variation between the repeat and the new client is 47.4% while it is only 4.4% in the case of ROPD as it is indicated in the following Figure 1.

Availabilities of healthcare services and client perception towards them

Among the total respondents, the laboratory test was ordered for 223 (83.2%) and 122 (91.7%) of clients at regular and private wing, respectively (Table 3).

Information provided by the healthcare workers and clients' perception concerning these services

As shown in Table 4, 247(92.2%) and 130(97.7%) of respondents reported that they have a good dialogue with the outpatient service providers at regular and private wing, respectively. More than three-fourth (78.0%) at

Table 1. Socio-demographic characteristics of respondents at adult regular and private wing outpatient department.

| Variables | ROPD (n=268) | PWOPD (n=133) | Total (n=401) |
|--|--------------|---------------|---------------|
| | N (%) | N (%) | N (%) |
| Sex | | | |
| <i>Male</i> | 166(61.9) | 74(55.6) | 240(59.9) |
| <i>Female</i> | 102(38.1) | 59(44.4) | 161(40.1) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Age group | | | |
| <i>18-28</i> | 79(29.5) | 50(37.6) | 129(32.2) |
| <i>29-39</i> | 99(36.9) | 31(23.3) | 130(32.4) |
| <i>40-50</i> | 69(25.7) | 32(24.1) | 101(25.2) |
| <i>51 and above</i> | 21(7.8) | 20(15.0) | 41(10.2) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Marital status | | | |
| <i>Single</i> | 67(25.0) | 38(28.6) | 105(26.2) |
| <i>Married</i> | 185(69.0) | 87(65.4) | 272(67.8) |
| <i>Divorced</i> | 13(4.9) | 3(2.3) | 16(4.0) |
| <i>Widowed</i> | 3(1.1) | 5(3.8) | 8(2.0) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Educational status | | | |
| <i>Illiterate/not able to read and write</i> | 64(23.9) | 28(21.1) | 92(22.9) |
| <i>Able to read and write</i> | 10(3.7) | 11(8.3) | 21(5.2) |
| <i>Grade 1-4</i> | 21(7.8) | 9(6.8) | 30(7.5) |
| <i>Grade 5-8</i> | 28(10.4) | 13(9.8) | 41(10.2) |
| <i>Grade 9-10</i> | 58(21.6) | 18(13.5) | 76(19.0) |
| <i>Grade 11-12</i> | 15(5.6) | 9(6.8) | 24(6.0) |
| <i>College or university</i> | 72(26.9) | 45(33.8) | 117(29.2) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Occupational status | | | |
| <i>Government employee</i> | 48(17.9) | 36(27.1) | 84(20.9) |
| <i>Private employee</i> | 39(14.6) | 16(12.0) | 55(13.7) |
| <i>Farmer</i> | 70(26.1) | 19(14.3) | 89(22.2) |
| <i>Merchant</i> | 39(14.6) | 17(12.8) | 56(14.0) |
| <i>House wife</i> | 28(10.4) | 27(20.3) | 55(13.7) |
| <i>Daily laborer</i> | 7(2.6) | 2(1.5) | 9(2.2) |
| <i>No job</i> | 8(3.0) | 2(1.5) | 10(2.5) |
| <i>Student</i> | 29(10.8) | 14(10.5) | 43(10.7) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Religion | | | |
| <i>Orthodox Christian</i> | 87(32.5) | 55(41.4) | 142(35.4) |
| <i>Protestant</i> | 125(46.6) | 63(47.4) | 188(46.9) |
| <i>Muslim</i> | 41(15.3) | 13(9.8) | 54(13.5) |
| <i>Catholic</i> | 14(5.2) | 2(1.5) | 16(4.0) |
| <i>Wakefata</i> | 1(0.4) | - | 1(0.2) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Ethnicity | | | |
| <i>Oromo</i> | 186(69.4) | 92(69.2) | 278(69.3) |

Table 1. Contd.

| | | | |
|------------------------------------|-----------|----------|-----------|
| <i>Amhara</i> | 59(22.0) | 24(18.0) | 83(20.7) |
| <i>Tigre</i> | 9(3.4) | 7(5.3) | 16(4.0) |
| <i>Gurage</i> | 14(5.2) | 6(4.5) | 20(5.0) |
| <i>Others^β</i> | - | 4(3.0) | 4(1.0) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Residence | | | |
| <i>Urban</i> | 138(51.5) | 92(69.2) | 230(57.4) |
| <i>Rural</i> | 130(48.5) | 41(30.8) | 171(42.6) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |
| Monthly family income (ETB) | | | |
| <i>150 and below</i> | 8(3.0) | 5(3.8) | 13(3.2) |
| <i>151-600</i> | 80(29.9) | 31(23.3) | 111(27.7) |
| <i>601-1200</i> | 64(23.9) | 24(18.0) | 88(21.9) |
| <i>1201-2500</i> | 57(21.3) | 13(9.8) | 70(17.5) |
| <i>2501 and above</i> | 59(22.0) | 60(45.1) | 119(30.0) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |

^β =Wolaita, Kembata, ETB=Ethiopian Birr (21.72ETB=\$1USA),*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

Table 2. The ways respondents visited the hospital at adult regular and private wing outpatient department.

| Variables | ROPD (n=268) | PWOPD (n=133) | Total (n=401) |
|---|--------------|---------------|---------------|
| | N (%) | N (%) | N (%) |
| How the respondents visited the hospital | | | |
| <i>Came after referral</i> | 77(28.7) | 20(15.0) | 97(24.2) |
| <i>Came upon recommendation from friend or relative</i> | 41(15.3) | 34(25.6) | 75(18.7) |
| <i>Came upon personal decision</i> | 150(56.0) | 79(59.4) | 229(57.1) |
| <i>Total</i> | 268(100) | 133(100) | 401(100) |

*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

regular and 121 (90.2%) of clients at private wing said that there was a convenient environment to ask questions the service providers at both outpatient departments.

Accessibility to healthcare services and clients' perception towards them

Concerning distance from the hospital, nearly two-third (63.2%) and more than half (51.5%) of respondents came from less than or equal to fifty-kilometer radius for private and regular outpatient department, respectively (Table 5). The cost paid for the services on average is 125 Ethiopian Birrs (ETB) for both regular and private wing. The services cost includes payment for registration, drug, treatment procedures, laboratory investigation, X-ray/ultrasound or any of the combinations by 148(55.2%) and 111(83.5%) of respondents, respectively, and it was rated as expensive by 29.5% of the respondents from

regular and 36.1% of the respondents from private wing (Figure 2). The mean waiting time to see the services provider (physician) was 30.64(±50.52) at regular while 17.97(±21.79) at private wing. Seventy-nine (29.5%) from regular and 44(33.1%) from PWOPD reported short overall waiting time (Figure 3).

Clients' level of satisfaction with different components of outpatient healthcare services

At ROPD, provider behavior, staff service, accessibilities of healthcare, physical facility and availabilities of services were extracted after factor analysis was conducted. Among these components, provider behavior explained 33.426% of the variance among the total variance explained by five components, which was 69.977% (Table 6). Regarding the component extracted at PWOPD provider behavior, physical facility, latrine

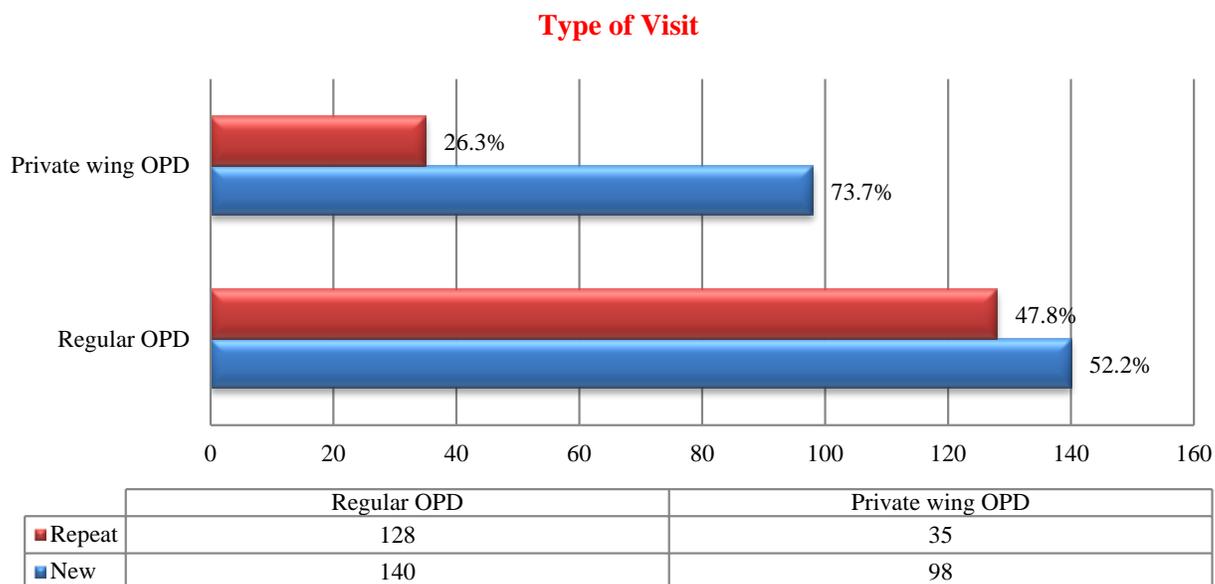


Figure 1. Type of clients' visit to regular and private wing outpatient department.

Table 3. Availabilities of healthcare services and client perception towards these services.

| S/N | Availability of health services | Client response | ROPD | | PWOPD | |
|-----|--|-----------------|------|------|-------|------|
| | | | No. | % | No. | % |
| 1 | Whether or not drugs or supplies ordered for the client | Yes | 268 | 100 | 133 | 100 |
| | | No | - | - | - | - |
| | | Total | 268 | 100 | 133 | 100 |
| 2 | Availability of ordered drugs and supplies in the hospital pharmacy | All in all | 125 | 46.6 | 72 | 54.1 |
| | | Some | 117 | 43.7 | 53 | 39.8 |
| | | Not at all | 26 | 9.7 | 9 | 6.0 |
| | | Total | 268 | 100 | 133 | 100 |
| 3 | Whether or not laboratory test(s) ordered for the client | Yes | 223 | 83.2 | 122 | 91.7 |
| | | No | 45 | 16.8 | 11 | 8.3 |
| | | Total | 268 | 100 | 133 | 100 |
| 4 | Availability of ordered laboratory test(s) in the hospital laboratory | All in all | 167 | 74.9 | 102 | 76.7 |
| | | Some | 26 | 11.7 | 9 | 6.8 |
| | | Not at all | 30 | 13.5 | 11 | 8.3 |
| | | Total | 223 | 100 | 122 | 100 |
| 5 | Were any X-ray/Ultrasound procedures ordered for the clients' | Yes | 161 | 60.1 | 84 | 63.2 |
| | | No | 107 | 39.9 | 49 | 36.8 |
| | | Total | 268 | 100 | 133 | 100 |
| 6 | Whether or not the clients' got the ordered procedures in the hospital | All in all | 68 | 42.2 | 39 | 46.4 |
| | | Some | 12 | 7.5 | 19 | 22.6 |
| | | Not at all | 81 | 50.3 | 26 | 31.0 |
| | | Total | 161 | 100 | 84 | 100 |

*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

Table 4. Information provided by the healthcare workers and clients' perception concerning these services.

| S/N | Information provided for the client by health worker | Client response | ROPD | | PWOPD | |
|-----|---|-----------------|------|------|-------|------|
| | | | No. | % | No. | % |
| 1 | Had good dialogue with provider | Yes | 247 | 92.2 | 130 | 97.7 |
| | | No | 21 | 7.8 | 3 | 2.3 |
| | | Total | 268 | 100 | 133 | 100 |
| 2 | The environment was convenient to ask question(s) | Yes | 209 | 78.0 | 120 | 90.2 |
| | | No | 59 | 22.0 | 13 | 9.8 |
| | | Total | 268 | 100 | 133 | 100 |
| 3 | Pharmacy staff explained for them on how to use drugs | Yes | 234 | 96.7 | 122 | 98.4 |
| | | No | 8 | 3.3 | 2 | 1.6 |
| | | Total | 242 | 100 | 124 | 100 |
| 4 | Client privacy and confidentiality during the service procedure | Yes | 258 | 96.3 | 131 | 98.5 |
| | | No | 10 | 3.7 | 2 | 1.5 |
| | | Total | 268 | 100 | 133 | 100 |

*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

Table 5. Clients' perception concerning their access to healthcare services.

| Variables | ROPD (n=268) | PWOPD(n=133) | Total(n=401) |
|--|--------------|--------------|--------------|
| | N (%) | N (%) | N (%) |
| Travel distance from home to hospital | | | |
| ≤50 km | 138(51.5) | 84(63.2) | 222(55.4) |
| >50 km | 130(48.5) | 49(36.8) | 179(44.6) |
| Total | 268(100) | 133(100) | 401(100) |
| Travel time in minutes | | | |
| <60 min | 147(54.9) | 86(64.7) | 233(58.1) |
| 60-120 min | 45(16.8) | 14(10.5) | 59(14.7) |
| 121-240 min | 32(11.9) | 12(9.0) | 44(11.0) |
| >240 min | 44(16.4) | 21(15.8) | 65(16.2) |
| Total | 268(100) | 133(100) | 401(100) |
| Money paid for services (in ETB) | | | |
| <100 | 109(40.7) | 16(12.0) | 125(31.2) |
| 100-500 | 148(55.2) | 111(83.5) | 259(64.6) |
| >500 | 11(4.1) | 6(4.5) | 17(4.2) |
| Total | 268(100) | 133(100) | 401(100) |
| Waiting time to enter OPD (at waiting area) | | | |
| <15 min | 110(41.0) | 74(55.6) | 184(45.9) |
| 15-30 min | 93(34.7) | 50(37.6) | 143(35.7) |
| 31-60 min | 53(19.8) | 8(6.0) | 61(15.2) |
| 61-90 min | 2(0.7) | - | 2(0.5) |
| >90 min | 10(3.7) | 1(0.8) | 11(2.7) |
| Total | 268(100) | 133(100) | 401(100) |

*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

Amount of money paid for the services rated as by the clients

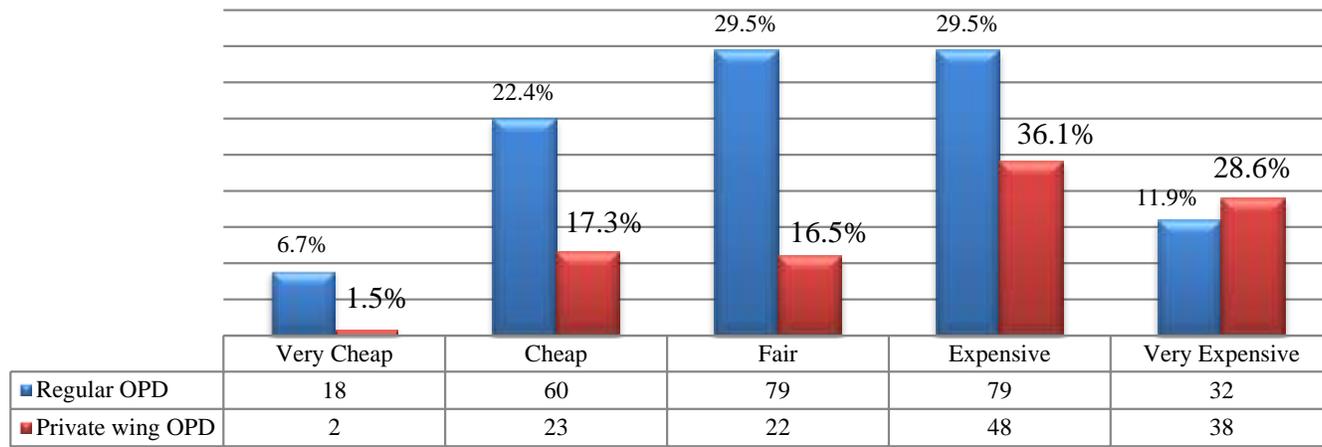


Figure 2. Respondent rating of the amount of money paid for services.

Overall waiting time in the hospital

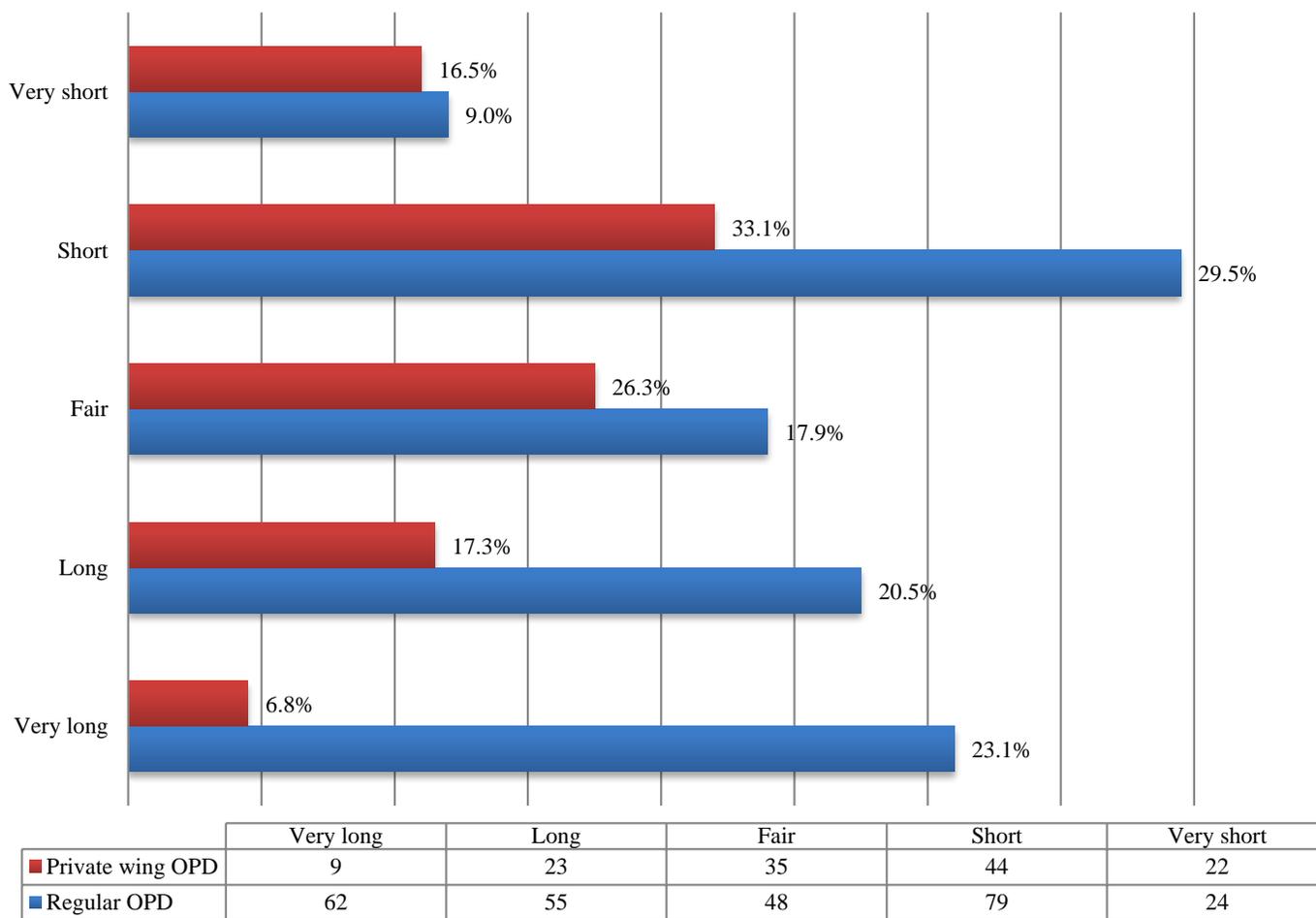


Figure 3. Respondent rating of overall waiting time in the hospital during the current visit.

Table 6. Results of exploratory factor analysis for ROPD.

| Factor | Factor loading | Variance explained (%) |
|--|----------------|------------------------|
| Factor 1: Provider behavior | | |
| <i>My doctor treats me in a very friendly and courteous manner</i> | 0.900 | |
| <i>Doctors are good to explain how to prevent my disease</i> | 0.724 | |
| <i>Doctors are careful to check everything when treating and examining me</i> | 0.893 | 33.426 |
| <i>Satisfaction with information provided by Doctor</i> | 0.918 | |
| <i>Satisfaction with Nurse services(Courteous and respectful)</i> | 0.658 | |
| Factor 2: Staff service | | |
| <i>I am satisfied by the information provided by all the staff</i> | 0.717 | |
| <i>All staffs in this hospital are courteous and respectful during my visit</i> | 0.784 | 11.839 |
| <i>Measures taken to assure confidentiality</i> | 0.645 | |
| <i>Overall quality of healthcare services in this hospital is good</i> | 0.642 | |
| Factor 3: Accessibilities of healthcare | | |
| <i>Satisfaction with the cost paid for the services</i> | 0.783 | |
| <i>The service procedure at this hospital is well coordinate between different department</i> | 0.810 | 10.452 |
| <i>The waiting time to get outpatient service after registration(at waiting area)is appropriate for me</i> | 0.807 | |
| Factor 4: Physical facility | | |
| <i>Satisfaction with waiting area sitting chairs</i> | 0.575 | |
| <i>Waiting area is clean and neat</i> | 0.683 | 8.160 |
| <i>Satisfaction with the cleanliness of Examination room/OPD</i> | 0.824 | |
| <i>Satisfaction with the Overall cleanliness of the compound</i> | 0.820 | |
| Factor 5: Availabilities of services | | |
| <i>Availability of drugs and supplies satisfaction</i> | 0.708 | 6.100 |
| <i>Pharmacists explain the use of medicine clearly</i> | -0.845 | |
| <i>Total Variance Explained</i> | | 69.977 |

related, accessibility to healthcare services and availability of service and information provision were extracted after factor analysis was conducted. From these components, provider behavior explained 36.659% of variance among the total variance explained by five components, which was 73.936% (Table 7).

Factor 1: Provider behavior

It consisted of 6 items at private wing and 5 items were loaded at ROPD (Tables 6 and 7). With regard to client level of satisfaction toward each item under this factor, for example, more than three-quarter of clients (82.1%) from regular and 117 (88.0%) from private wing said they were satisfied with the information provided by doctor (Tables 8 and 9).

Factor 2: Staff services at ROPD

This component explained 11.839% of variance among the total variance explained by the five factors. About two-third (63.8%) of clients were satisfied with the information provided by all the staff they contacted. Nearly three-fourth (73.1%) of clients' indicated that the overall quality of healthcare services was good (Table 8).

Factor 2: Physical facility at PWOPD

Physical facility explained 11.839% of variance from the total variance explained of (73.936%) (Table 7). Most (82.7%) of respondents were satisfied with waiting area sitting chairs and three-fourth of clients' (75.2%) were satisfied with the waiting area cleanliness and neatness (Table 9).

Table 7. Results of exploratory factor analysis for PWOPD.

| Factor | Factor loading | Variance explained (%) |
|--|-----------------------|-------------------------------|
| Factor 1: Provider behavior | | |
| <i>Doctors are good to explain how to prevent my disease</i> | 0.876 | 36.659 |
| <i>Satisfaction with information provided by Doctor</i> | 0.865 | |
| <i>Satisfaction with information provided by Nurse</i> | 0.895 | |
| <i>Satisfaction with Nurse services(Courteous and respectful)</i> | 0.870 | |
| <i>I am satisfied the way health provider listened to me</i> | 0.890 | |
| <i>I am satisfied by the information provided by all the staff</i> | 0.815 | |
| Factor 2:Physical facility | | |
| <i>Adult OPD location is convenient for you</i> | 0.794 | 11.839 |
| <i>Satisfaction with waiting area sitting chairs</i> | 0.883 | |
| <i>Waiting area is clean and neat</i> | 0.815 | |
| <i>Satisfaction with the cleanliness of Examination room/OPD</i> | 0.616 | |
| Factor 3:Latrine related | | |
| <i>Satisfaction with the access of the latrine</i> | 0.983 | 11.095 |
| <i>Satisfaction with the cleanliness of the latrine</i> | 0.983 | |
| Factor 4: Accessibility to healthcare services | | |
| <i>Satisfaction with the cost paid for the services</i> | 0.723 | 7.708 |
| <i>The waiting time to get outpatient service after registration (that is at waiting area) is appropriate for me</i> | 0.705 | |
| <i>Satisfaction with time spent to get services (Over all waiting time)</i> | 0.747 | |
| Factor 5: Availability of service (that is drugs) and Information provision | | |
| <i>Availability of drugs and supplies satisfaction</i> | 0.718 | 6.684 |
| <i>Pharmacists explain the use of medicine clearly</i> | -0.819 | |
| <i>Total Variance Explained</i> | | 73.936 |

Factor 3: Accessibility to healthcare services at ROPD

In factor analysis, only 3 items (cost paid for the services, service procedure and waiting time to enter OPD clinic) were loaded on this factor and it explained 10.452% of variance (Table 6). For example, among those three items, it was found that 12.7, 38.4 and 48.9% of clients were dissatisfied, neutral and satisfied on the amount of money incurred for the services respectively (Table 8).

Factor 3: Latrine related at PWOPD

Table 7 indicated latrine related factor as one factor that explained 11.095% of variance. Out of the one hundred and fourteen clients' who visited the latrine, more than half (57.0%) were unsatisfied on the accessibility of the latrine (Table 9).

Factor 4: Physical facility at ROPD

Three items (satisfaction with waiting area sitting chairs,

cleanliness, and neatness of waiting area as well as cleanliness of examination room) were loaded under this factor which explained 8.160% of the variance at ROPD. Among the total interviewed respondents 45.5% of clients cited as unsatisfied with waiting area sitting chairs (Table 8).

Factor4: Accessibility to healthcare services at PWOPD

It explained 7.708% of variance from the total variance explained by five factors (Table 7). More than half (76, 57.1%) of clients were unsatisfied with the amount of money paid for the services (Table 9).

Factor 5: Availabilities of services

This component explained 6.100 and 6.684% of the variance at regular and private wing outpatient department, respectively (Tables 6 and 7). More than one-third (105, 39.2%) and one-third (45, 33.8%) of clients were unsatisfied at both regular and private wing

Table 8. Satisfaction of client with the different components of outpatient healthcare services at ROPD.

| Factor and each items load under them | Perceived client response in number and percentage at ROPD | | | | |
|--|--|------------|-----------------|---------------|------------|
| | SDA n(%) | DA n(%) | Neutral n(%) | Agree n(%) | SA n(%) |
| Factor 1: Provider Behavior | | | | | |
| <i>My doctor treats me in a very friendly and courteous manner</i> | 2(0.7) | 13(4.9) | 21(7.8) | 148(55.2) | 84(31.3) |
| <i>Doctors are good to explain how to prevent my disease</i> | 5(1.9) | 46(17.2) | 23(8.6) | 130(48.5) | 64(23.9) |
| <i>Doctors are careful to check everything when treating and examining me</i> | 3(1.1) | 17(6.3) | 24(9.0) | 144(53.7) | 80(29.9) |
| <i>Satisfaction with information provided by Doctor</i> | 3(1.1) | 20(7.5) | 25(9.3) | 140(52.2) | 80(29.9) |
| <i>Satisfaction with Nurse services(Courteous and respectful)</i> | 5(1.9) | 39(14.6) | 39(14.6) | 122(45.5) | 63(23.5) |
| Factor 2: Staff's Services | | | | | |
| <i>I am satisfied by the information provided by all the staff</i> | 6(2.2) | 27(10.1) | 64(23.9) | 129(48.1) | 42(15.7) |
| <i>All staffs in this hospital are courteous and respectful during my visit</i> | 7(2.6) | 28(10.4) | 70(26.1) | 118(44.1) | 45(16.8) |
| <i>Measures were taken to assure confidentiality</i> | 1(0.4) | 9(3.4) | 10(3.7) | 148(55.2) | 100(37.3) |
| <i>Overall quality of healthcare services in this hospital is good</i> | 2(0.7) | 21(7.8) | 49(18.3) | 141(52.6) | 55(20.5) |
| Factor 3: Accessibility to health care services | | | | | |
| <i>Satisfaction with the cost paid for the services</i> | 41(15.3) | 62(23.1) | 34(12.7) | 90(33.6) | 41(15.3) |
| <i>The service procedure at this hospital is well coordinate between different department</i> | 19(7.1) | 56(20.9) | 31(11.6) | 127(47.4) | 35(13.1) |
| <i>The waiting time to get outpatient service after registration(at waiting area)is appropriate for me</i> | 50(18.7) | 54(20.1) | 26(9.7) | 91(34.0) | 47(17.5) |
| Factor 4: Physical facility | | | | | |
| <i>Satisfaction with waiting area sitting chairs</i> | 28(10.4) | 94(35.1) | 32(11.9) | 83(31.0) | 31(11.6) |
| <i>Waiting area is clean and neat</i> | 11(4.1) | 55(20.5) | 66(24.6) | 106(39.6) | 30(11.2) |
| <i>Satisfaction with the cleanliness of Examination room/OPD</i> | 4(1.5) | 28(10.4) | 43(16.0) | 123(45.9) | 70(26.1) |
| <i>Satisfaction with the Overall cleanliness of the compound</i> | 10(3.7) | 42(15.7) | 94(35.1) | 104(38.8) | 18(6.7) |
| Factor 5: Availabilities of services and Information provision | | | | | |
| <i>Availability of drugs and supplies satisfaction</i> | 33(12.3) | 72(26.9) | 28(10.4) | 62(23.1) | 73(27.2) |
| <i>Pharmacists explain the use of medicine clearly(n=250)</i> | 7(2.8) | 18(7.2) | 13(5.2) | 117(46.8) | 95(38) |

*SDA: Strongly Disagree; DA: Disagree, SA: strongly agree, ROPD: Regular outpatient department, PWOPD: Private outpatient department.

outpatient department, respectively (Tables 8 and 9).

Overall client satisfaction

In this study, the overall client satisfaction was

measured with four items, in which only one unrotated factor with four items was extracted during the factor analysis at both departments. Clients who utilized private wing outpatient services were more satisfied than those who opted for regular outpatient services in all the four

items. By taking mean scores (percentages of maximum scale scores) the overall client satisfaction with outpatient services at ROPD was 58.16%.

The raw mean score client satisfaction was 13.31 ± 4.62 with the possible value range of 4 to

Table 9. Satisfaction of client with the different components of outpatient healthcare services at PWOPD.

| Factors with loaded items | Perceived client response in number and percentage at PWOPD | | | | |
|--|---|----------|-----------------|---------------|----------|
| | SDA n (%) | DA n(%) | Neutral n(%) | Agree n(%) | SA n(%) |
| Factor 1: Provider behavior and Staff services | | | | | |
| <i>Doctors are good to explain how to prevent my disease</i> | - | 5(3.8) | 11(8.3) | 58(43.6) | 59(44.4) |
| <i>Satisfaction with information provided by Doctor</i> | 1(0.8) | 5(3.8) | 10(7.5) | 59(44.4) | 58(43.6) |
| <i>Satisfaction with information provided by Nurse</i> | 2(1.5) | 3(2.3) | 11(8.3) | 54(40.6) | 63(47.4) |
| <i>Satisfaction with Nurse services(Courteous and respectful)</i> | 1(0.8) | 3(2.3) | 10(7.5) | 55(41.4) | 64(48.1) |
| <i>I am satisfied the way health provider listened to me</i> | 2(1.5) | 3(3.8) | 9(6.8) | 55(41.4) | 64(48.1) |
| <i>I am satisfied by the information provided by all the staff</i> | 1(0.8) | 5(3.8) | 12(9.0) | 58(43.6) | 57(42.9) |
| Factor 2: Physical facility | | | | | |
| <i>Adult OPD location is convenient for you</i> | - | 13(9.8) | 3(2.3) | 53(39.8) | 64(48.1) |
| <i>Satisfaction with waiting area sitting chairs</i> | - | 15(11.3) | 8(6.0) | 53(39.8) | 57(42.9) |
| <i>Waiting area is clean and neat</i> | 1(0.8) | 15(11.3) | 17(12.8) | 51(38.3) | 49(36.8) |
| <i>Satisfaction with the cleanliness of Examination room/OPD</i> | 1(0.8) | 15(11.3) | 17(12.8) | 62(46.6) | 38(28.6) |
| Factor 3: Latrine related | | | | | |
| <i>Satisfaction with the access of the latrine(n=114)</i> | 14(12.3) | 51(44.7) | 26(22.8) | 15(13.2) | 8(7.0) |
| <i>Satisfaction with the cleanliness of the latrine(n=114)</i> | 28(24.6) | 55(48.2) | 11(9.6) | 13(11.4) | 7(6.1) |
| Factor4: Accessibility to healthcare services | | | | | |
| <i>Satisfaction with the cost paid for the services</i> | 36(27.1) | 40(30.1) | 10(7.5) | 29(21.8) | 18(13.5) |
| <i>The waiting time to get outpatient service after registration(at waiting area)is appropriate for me</i> | 3(2.3) | 16(12.0) | 16(12.0) | 59(44.4) | 39(29.3) |
| <i>Satisfaction with time spent to get services and get back(Over all waiting time)</i> | 8(6.0) | 22(16.5) | 9(6.8) | 51(38.3) | 43(32.3) |
| Factor 5: Availability of service (drugs) and Information provision | | | | | |
| <i>Availability of drugs and supplies satisfaction</i> | 10(7.5) | 35(26.3) | 6(4.5) | 28(21.1) | 54(40.6) |
| <i>Pharmacists explain the use of medicine clearly(n=128)</i> | 1(0.8) | 6(4.7) | 4(3.1) | 43(33.5) | 74(57.8) |

SDA=Strongly Disagree, DA=Disagree, SA=strongly agree, PWOPD: Private outpatient department.

20, while mean scores (percentages of maximum scale scores) of the overall client satisfaction with outpatient services at PWOPD was 68.84% (Table 10).

Comparison of client level of satisfaction

There was no statistically significant difference

between the mean overall level of client satisfaction with healthcare services delivered at private wing and regular adult outpatient department ($F[1; 399] = 0.000, p=1.000$).

Factors affecting client satisfaction:-Socio-demographic characteristics

Among the socio-demographic variables, only

marital status, educational status, and the distance showed statistically significant association at ($p<0.05$) at the ROPD. Divorced had 0.622 unit greater satisfaction when compared to their married counterparts at ($\beta=0.622, p=0.023, 95\%CI=0.086, 1.158$). Respondents whose educational level is grade 9 to 10 had 0.280 unit less satisfaction score as compared to college or university at ($\beta =-0.280,$

Table 10. The responses of clients' to overall satisfaction items with different components at both departments.

| Items | Client department and their response | | | |
|---|--------------------------------------|-------|--------|------|
| | ROPD | | PWOPD | |
| | No. | % | No. | % |
| This hospital and its services were according to my expectations | | | | |
| <i>Strongly disagree</i> | 18 | 6.7 | 1 | 0.8 |
| <i>Disagree</i> | 64 | 23.9 | 21 | 15.8 |
| <i>Neutral</i> | 37 | 13.8 | 16 | 12.0 |
| <i>Agree</i> | 112 | 41.8 | 63 | 47.4 |
| <i>Strongly agree</i> | 37 | 13.8 | 32 | 24.1 |
| Willingness/Intention to come back again to the hospital | | | | |
| <i>Strongly disagree</i> | 20 | 7.5 | 1 | 0.8 |
| <i>Disagree</i> | 65 | 24.3 | 19 | 14.3 |
| <i>Neutral</i> | 30 | 11.2 | 16 | 12.0 |
| <i>Agree</i> | 118 | 44.0 | 70 | 52.6 |
| <i>Strongly agree</i> | 35 | 13.1 | 27 | 20.3 |
| Willingness to recommend the hospital to someone else | | | | |
| <i>Strongly disagree</i> | 21 | 7.8 | 5 | 3.8 |
| <i>Disagree</i> | 62 | 23.1 | 15 | 11.3 |
| <i>Neutral</i> | 35 | 13.1 | 23 | 17.3 |
| <i>Agree</i> | 110 | 41.0 | 61 | 45.9 |
| <i>Strongly agree</i> | 40 | 14.91 | 29 | 21.8 |
| I am over all satisfied with the OPD services | | | | |
| <i>Strongly disagree</i> | 19 | 7.1 | 2 | 1.5 |
| <i>Disagree</i> | 59 | 22.0 | 20 | 15.0 |
| <i>Neutral</i> | 38 | 14.2 | 17 | 12.8 |
| <i>Agree</i> | 112 | 41.8 | 64 | 43.1 |
| <i>Strongly agree</i> | 40 | 14.9 | 30 | 22.6 |
| <i>Overall level of client satisfaction</i> | 58.16% | | 68.84% | |

*ROPD: Regular outpatient department, PWOPD: Private outpatient department.

$p=0.048$, 95%CI=-0.558, -0.003) (Table 11). At the private wing, only type of visit, the way respondents visited the hospital and travel time showed the statistically significant association.

Accordingly, those who responded as new visitors had 0.327 unit greater satisfaction as compared to the repeats ($\beta =0.327$, $p=0.0001$, 95%CI=0.390, 1.390) (Table 12).

Factors affecting client satisfy: - other than socio-demographic characteristics

The factors extracted after performing exploratory factor analysis were taken as independent variables. Then, to determine the importance of each factor for client satisfaction at regular and private wing outpatient department in Nekemte referral hospital, the simple linear

regression was conducted and candidate variable having p-value less than 0.25 was selected.

All assumptions of linear regression (that is linearity, normality and multicollinearity) were checked. As has been cited in Table 13, all extracted factors - provider behaviour, Staff services, accessibility of health services, physical facility and availability of services had p-value less than 0.25 and all of them were entered into multivariable linear regression at ROPD. With regard to factors extracted at PWOPD, latrine related, and availability of services and information provision had no significance at $p<0.25$ and were excluded from multiple regression analysis. At ROPD, accessibility of health services, staff services and physical facility were positively correlated with client satisfaction. While availability of services was negatively correlated (Table 14).

In the case of PWOPD, provider behavior, accessibility

Table 11. Socio-demographic determinants of client satisfaction at the ROPD.

| Variables | Frequency | % | β | p-value | 95% CI for β | |
|---------------------------------------|-----------|------|---------|---------|--------------------|--------|
| | | | | | LB | UB |
| Marital status | | | | | | |
| <i>Single</i> | 67 | 25 | 0.062 | 0.32 | -0.139 | 0.423 |
| <i>Married**</i> | 185 | 69 | | | | |
| <i>Divorced</i> | 13 | 4.9 | 0.622 | 0.023 | 0.086 | 1.158 |
| <i>Widowed</i> | 3 | 1.1 | -0.024 | 0.694 | -1.375 | 0.917 |
| Educational status | | | | | | |
| <i>Not able to read and write</i> | 64 | 23.9 | -0.032 | 0.664 | -0.416 | 0.265 |
| <i>Able to read and write</i> | 10 | 3.7 | 0.022 | 0.907 | -0.233 | 0.262 |
| <i>Grade 1-4</i> | 21 | 7.8 | 0.025 | 0.711 | -0.404 | 0.592 |
| <i>Grade 5-8</i> | 28 | 10.4 | -0.003 | 0.963 | -0.46 | 0.438 |
| <i>Grade 9-10</i> | 58 | 21.6 | -0.28 | 0.048 | -0.558 | -0.003 |
| <i>Grade 11-12</i> | 15 | 5.6 | -0.115 | 0.052 | -1.004 | 0.004 |
| <i>College or university**</i> | 72 | 26.9 | - | - | - | - |
| Distance from home to hospital | | | | | | |
| <i><=50 km</i> | 138 | 51.5 | 0.587 | 0.0001 | 0.358 | 0.747 |
| <i>>50 km**</i> | 130 | 48.5 | - | - | - | - |

**reference groups, those with high frequency of observations were used.

Table 12. The way how client visited the PWOPD.

| Variables | Frequency | % | β | p-value | 95% CI for β | |
|---|-----------|------|---------|---------|--------------------|--------|
| | | | | | LB | UB |
| How respondent visited the hospital | | | | | | |
| <i>Came after referral</i> | 20 | 15 | 0.145 | 0.12 | -0.107 | 0.914 |
| <i>Came upon recommendation from friend or relative</i> | 34 | 25.6 | 0.232 | 0.006 | 0.156 | 0.905 |
| <i>Came upon personal decision**</i> | 79 | 59.4 | | | | |
| Type of visit | | | | | | |
| <i>New visit</i> | 98 | 73.7 | 0.327 | 0.0001 | 0.39 | 1.09 |
| <i>Repeat visit **</i> | 35 | 26.3 | | | | |
| Travel time (in minutes) | | | | | | |
| <i><60 minutes</i> | 86 | 64.7 | 0.281 | 0.147 | -0.183 | 0.945 |
| <i>60-120 minutes</i> | 14 | 10.5 | -0.266 | 0.001 | -1.361 | -0.365 |
| <i>121-240 minutes</i> | 12 | 9 | 0.215 | 0.09 | -0.118 | 1.611 |
| <i>>240 minutes**</i> | 21 | 15.8 | | | | |

**reference groups, those with high frequency of observations were used

to healthcare services and Physical facility were positively correlated with client satisfaction (Table 15).

Predictors of client level of satisfaction at ROPD

In this study, the percentage mean scale score of

provider behavior was found to be 73.41%. This factor entered into the simple linear regression model and explained 17.6% of the variation in the level of client satisfaction, and provider behavior was significantly associated with client satisfaction at p (<0.0001) (0.078, 0.133). The percentage mean scale score of staff services was found to be 66.924% and has an average

Table 13. The extracted factors as predictors of Client level of satisfaction with different component of outpatient services at regular and private wing outpatient department.

| Client department | Factors | Unstandardized coefficients | | Standardized coefficients | t | P-value | 95.0%CI for B | |
|-------------------|--|-----------------------------|-----------|---------------------------|--------|---------|---------------|-------|
| | | B | Std.Error | β | | | LB | UB |
| ROPD | Provider behaviour | 0.105 | 0.014 | 0.423 | 7.605 | 0.000 | 0.078 | 0.133 |
| | Staff services | 0.180 | 0.019 | 0.501 | 9.448 | 0.000 | 0.142 | 0.217 |
| | Accessibility of health services | 0.205 | 0.014 | 0.675 | 14.927 | 0.000 | 0.178 | 0.232 |
| | Physical facility | 0.110 | 0.018 | 0.348 | 6.048 | 0.000 | 0.074 | 0.146 |
| | Availability of services | -0.004 | 0.003 | -0.088 | -1.441 | 0.151 | -0.009 | 0.001 |
| PWOPD | Provider behaviour | 0.155 | 0.015 | 0.670 | 10.342 | 0.000 | 0.125 | 0.185 |
| | Physical facility | 0.090 | 0.027 | 0.277 | 3.301 | 0.001 | 0.036 | 0.144 |
| | latrine related | -0.001 | 0.001 | -0.068 | -0.775 | 0.440 | -0.004 | 0.002 |
| | Accessibility to health care services | 0.183 | 0.026 | 0.523 | 7.016 | 0.000 | 0.131 | 0.235 |
| | Availability of services and information provision | -0.001 | 0.005 | -0.014 | -0.163 | 0.871 | -0.011 | 0.009 |

ROPD: Regular outpatient department, PWOPD: Private outpatient department.

Table 14. Pearson Correlation of extracted factor with client satisfaction at ROPD.

| Factors extracted | Client satisfaction | Provider behavior | Staff services | Accessibility of health services | Physical facility | Availability of services |
|----------------------------------|---------------------|-------------------|----------------|----------------------------------|-------------------|--------------------------|
| Client satisfaction | 1.000 | 0.423 | 0.501 | 0.675 | 0.348 | -0.088 |
| Provider behavior | 0.423 | 1.000 | 0.606 | 0.314 | 0.233 | 0.006 |
| Staff services | 0.501 | 0.606 | 1.000 | 0.348 | 0.288 | -0.112 |
| Accessibility of health services | 0.675 | 0.314 | 0.348 | 1.000 | 0.214 | -0.022 |
| Physical facility | 0.348 | 0.233 | 0.288 | 0.214 | 1.000 | -0.055 |
| Availability of services | -0.088 | 0.006 | -0.112 | -0.022 | -0.055 | 1.000 |

mean raw score of 15.3694 ± 2.78736 with the value range of 6 to 20. This component explained 24.8% variation in client satisfaction among the ROPD and the staff service was significantly associated with client's level of satisfaction at p (0.0001) (0.142 to 0.217). Percentage mean scale score of accessibility of health services to the clients at ROPD in this study was found to be 55.0375% and has an average raw mean score of 9.6045 ± 3.28888 with the value range of 3 to

15. In model, accessibility of healthcare service explained 45.4% variability in level of satisfaction. This factor was significantly associated with the level of satisfaction at p (0.0001) (0.178 to 0.232).

Predictors of client level of satisfaction at PWOPD

The percentage mean scale score of provider

behavior was 80.69. In the final model, it explained 44.5% of the variation in the level of client satisfaction and the provider behavior was significantly associated with client satisfaction at p (<0.0001) (0.125, 0.185). The percentage mean scale score of the physical facility was 69.23% and has an average raw mean score of 16.30 ± 3.08756 with the value range of 8 to 20. It explained 45.4% variability in the level of satisfaction. It was significantly and positively

Table 15. Pearson Correlation of extracted factor with client satisfaction at PWOPD.

| Components extracted | Client satisfaction | Provider behavior | Physical facility | Accessibility to healthcare services |
|--------------------------------------|---------------------|-------------------|-------------------|--------------------------------------|
| Clients' satisfaction | 1.000 | 0.670 | 0.277 | 0.523 |
| Provider behaviour | 0.670 | 1.000 | 0.346 | 0.319 |
| Physical facility | 0.277 | 0.346 | 1.000 | 0.151 |
| Accessibility to healthcare services | 0.523 | 0.319 | 0.151 | 1.000 |

associated with the level of satisfaction at p (0.001) (0.036 to 0.144). Percentage mean scale score of accessibility of health services to the clients was found to be 60.46% and has an average raw mean score of 10.25 ± 2.85 with the value range of 3 to 15. It was entered into the model and explained 26.8% variability in level of satisfaction. This component was significantly associated with the level of satisfaction at p (0.0001) (0.131, 0.235). Availability of services and information provided were also entered in the model and explained (-0.7%) variability in the level of satisfaction. The percentage mean scale score was 8.85% and has an average raw mean score of 11.59 ± 3.08 with the value range of 3 to 100.

Predictors of client satisfaction

Results of the multivariable regression analysis indicate that staff services and physical facilities significantly influence client satisfaction in ROPD while provider behavior was the most important factor that influences client level of satisfaction in PWOPD. At both departments, accessibility of health services was the strong predictor of client level of satisfaction. As indicated in Table 16, the regression estimates and the relative effect of each predictor factor for the level of client satisfaction with different components of an outpatient department indicated. For example, a

unit increment in accessibility of health services improves client satisfaction by 0.164 at p (<0.0001) (0.138, 0.191) at a ROPD, while 0.120 at p (<0.0001) (0.078, 0.163) at the PWOPD. The final model explained 55.6% and 54.9% of the variation in the level of client satisfaction at regular and private wing outpatient department, respectively (Table 17).

DISCUSSION

The overall level of satisfaction with different healthcare services provided at regular and private wing clients was (58.16%) and (68.84%), respectively. There was no statistically significant difference between the mean overall level of client satisfaction with healthcare services delivered at both departments ($F [1; 399] = 0.000, P=1.000$). The result of this finding - the level of satisfaction is lower than the study conducted in Hawassa University Teaching Hospital, Jimma University Specialized Hospital (JUSH), Nigeria in Aminu Kano Hospital, Nepal and India in Rural Haryana in which the clients satisfaction were 80.1, 77.0, 83, 75.9 and 89.1%, respectively (Assefa et al., 2014; Assefa et al., 2011; Qadri et al., 2012; Rajbanshi et al., 2014), but this result was in line with the study conducted in Deberebirhan and Bahir Dar Felege Hiwot Referral Hospital which showed clients satisfaction of 57.7 and 57.8%, respectively (Agumas et al., 2014; Mezemir et al.,

2014). However, the study conducted on client satisfaction with outpatient services in Tigray zonal hospitals, Wolaita Sodo University Teaching Hospital, Eastern Ethiopia and Maharashtra reported client satisfaction of 43.6, 54.2, 54.1 and 50.89%, respectively which is lower than the satisfaction level revealed by this study (Girmay, 2006; Abdosh, 2006; Gamo et al., 2015). The possible reason for the observed difference might be due to the that socioeconomic variations of clients, time of the study, availability of human power and infrastructure, client load, the commitment of the concerned bodies and methodological variation which may negatively or positively affect the level of satisfaction.

Among the socio-demographic variables, only marital and educational status of respondents makes a significant association with clients' satisfaction at ROPD while none of them showed a statistically significant association at PWOPD. In agreement with this, studies revealed that the clients' educational status determines their level of satisfaction. For example, the study conducted in Tigray zonal hospitals towards client satisfaction with outpatient services showed that respondents who have tertiary education (diploma and above) were more satisfied as compared to those with lower educational level (Girmay, 2006). In contrast, a study conducted in Iraq revealed that patients with lower educational levels (illiterate /primary) were more satisfied than those with

Table 16. The extracted factors as the final predictors of Client level of satisfaction with different component of the outpatient healthcare services at RWOPD.

| Client department | Factors | Unstandardized Coefficient | | Standardize Coefficient β | T | P-value | 95%CI for B | |
|-------------------|--------------------------------------|----------------------------|-----------|---------------------------------|--------|---------|-------------|-------|
| | | B | Std.Error | | | | LB | UB |
| ROPD | Staff services | 0.078 | 0.019 | 0.218 | 4.102 | 0.000 | 0.041 | 0.116 |
| | Accessibility of health services | 0.164 | 0.013 | 0.540 | 12.212 | 0.000 | 0.138 | 0.191 |
| | Physical facility | 0.047 | 0.014 | 0.149 | 3.470 | 0.001 | 0.020 | 0.074 |
| | Availability of services | -0.002 | 0.002 | -0.045 | -1.096 | 0.274 | -0.005 | 0.002 |
| | Provider behavior | 0.021 | 0.013 | 0.086 | 1.656 | 0.099 | -0.004 | 0.047 |
| PWOPD | Provider behavior | 0.130 | 0.014 | 0.561 | 9.092 | 0.000 | 0.102 | 0.158 |
| | Accessibility of healthcare services | 0.120 | 0.022 | 0.344 | 5.575 | 0.000 | 0.078 | 0.163 |
| | Physical facility | 0.012 | 0.020 | 0.036 | 0.570 | 0.570 | -0.029 | 0.052 |

Table 17. The model summary of extracted factor at both departments.

| Client department | R | R ² | Adjusted R ² | Std. error of the estimate |
|-------------------|--------------------|----------------|-------------------------|----------------------------|
| ROPD | 0.750 ^a | 0.562 | 0.556 | 0.66659110 |
| PWOPD | 0.745 ^b | 0.556 | 0.549 | 0.67167706 |

a. Predictors: (Constant),provider behavior, physical facility, accessibility of health services, staff services. b. Predictors: (Constant),accessibility to healthcare services, provider behavior.

higher levels (secondary/university), and education showed a negative significant relationship with patient satisfaction level (Fasika, 2013).

Marital status of respondents was statistically associated with the level of client satisfaction. Respondents who were divorced had 0.622 unit greater satisfaction compared to the married ones at the ROPD. This finding is contrary to the study conducted at selected health facilities in six regions of Ethiopia which reported that patients who were divorced were 45% less likely to have high satisfaction score than those who were married (Bekele et al., 2008).

The study conducted at Hawassa University Teaching Hospital indicated that there was no observed association between clients' satisfaction and socio-demographic variables which are in line with the present study at PWOPD (Assefa et al., 2014). Studies revealed that the causes of clients' dissatisfaction with the healthcare services at public health institutions are a lack of drugs and supplies in the hospital pharmacies. The current study shows that about 53.36 and 46.62% of clients with the prescription for drugs did not get some or none of the ordered drugs from the hospital's pharmacy at regular and private wing outpatient departments, respectively. This finding

is supported by the study conducted in Tigray zonal hospitals in which 61% of those clients with the prescription for drugs did not get the ordered drugs from the hospitals' pharmacies (Girmay, 2006). Similarly, the study done at JUSH indicated that about 70% of the clients with the prescription for drugs did not get some or all of the ordered drugs from the hospital's pharmacy (Assefa et al., 2011). In contrast to this, the result of the study conducted in Deberebirhan Referral Hospital showed that more than 68% of the patients were getting prescribed drugs within the hospital pharmacy (Mezemir et al., 2014). In this report, it is also indicated that 39.18 and 33.83% of

respondents were unsatisfied from regular and private wing outpatient department with the availabilities of drugs and supplies, respectively.

The finding of this study shows that 77.8 and 53.6% of clients with the prescription for X-ray/ultrasound procedure did not get some or any of the ordered procedures from the hospital at regular and private wing outpatient department, respectively. In this study clients' privacy was maintained by 96.3% at regular and 98.5% at PWOPD which is relatively higher than the studies conducted in Wolaita Sodo University Teaching Hospital and Nepal OPD at Chitwan Medical College Teaching Hospital, where clients are satisfied with privacy during consultation by 90.7 and 91.5%, respectively (Gamo et al., 2015; Rajbanshi et al., 2014).

Among the extracted factors from the items that measure the level of client satisfaction; accessibility of healthcare services was the determinant of clients' satisfaction at both departments, but staff services and physical facility were the significant determinants of clients' satisfaction at ROPD. On the other hand, provider behavior was a significant determinant of clients' satisfaction at the PWOPD. Most of these factors were also found to be determinants of clients satisfaction with outpatient department healthcare services at hospital setting in studies conducted elsewhere (Mezemir et al., 2014; Mao, 2012; Rajbanshi et al., 2014; Sanjib and Bhaben, 2015). For example, the study conducted on satisfaction with healthcare services of outpatient department at Chitwan Medical College Teaching Hospital of Nepal indicated that 43.7% patient were poorly satisfied with the physical facilities of the hospital (Rajbanshi et al., 2014).

Limitation of the study

- (i) The finding of this study might be subjected to social desirability bias due to the fact that facility based studies can produce more positive responses since the respondents were interviewed in the hospital compound.
- (ii) The finding of this study was limited to healthcare services rendered at regular and private wing adult outpatient departments so it does not shade light to specific services in the other departments.
- (iii) This study was only limited to quantitative aspect.
- (iv) The client may feel more satisfied immediately after their consultation which relatively short-lived than they do afterward.

Conclusion

- (i) The overall level of client satisfaction in Nekemte Referral Hospital at regular and private wing outpatient department was low.
- (ii) The mean overall level of client satisfaction with

healthcare services delivered at private wing and regular adult outpatient department of the hospital was not statistically different.

- (iii) Marital status, educational level, type of visit, the means respondents visited the hospital and travel time of respondents were statistically associated with client satisfaction at PWOPD.
- (iv) Staff service and physical facility were the strong predictors of client satisfaction at the ROPD.
- (v) Client satisfaction at a PWOPD was highly predicted by provider behavior.
- (vi) Accessibility of health services was a strong predictor of client satisfaction at both departments.
- (vii) This study had shed light on some most important determinants of client satisfaction in the hospital at both departments. Based on these findings, the hospital in both categories of departments has to do for betterment, especially on identified determinant factors of clients' satisfaction.
- (viii) It is highly suggested that a detailed and extensive study should be conducted by adding another explanatory variables and qualitative aspects to get the clear picture of the whole situation of the problem at the hospital.

Ethics approval and consent to participate

Before any attempt to collect the data, approval to conduct the study was obtained from the Institutional Review Board (IRB) of Jimma University, College of Health Science. Each study participants were informed about the purpose of the study, the right to refuse to participate in the study, and confidentiality of the information. They were assured that they are not penalized for not participating if they wish and that their responses to the questions have no effect on their care in the hospital. Then, formal consent letter was obtained from the Hospital manager, Medical director, Matrons, Head nurses and verbal consent from each participant.

COMPETING INTERESTS

The authors have not declared any conflict of interests.

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Abbreviation

E.C, Ethiopian calendar; **ETB**, Ethiopian Birr; **FMOH**, Federal Ministry of Health; **IOM**, Institute of Medicine; **JUSH**, Jimma University Specialized Hospital; **OPD**, outpatient department; **PWOPD**, private wing outpatient department; **ROPD**, regular outpatient department

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