

Satisfaction with Antiretroviral Therapy Services among People Living with HIV in Baglung DistrictBishnu Subedi¹, Nand Ram Gahatraj¹¹School of Health Allied Sciences, Faculty of Health Sciences, Pokhara University, Pokhara, Nepal**ABSTRACT**

Introduction: Antiretroviral therapy is the key to control of HIV/AIDS. Patient satisfaction is one of the commonly used outcome measures of patient care. The objective of this study was to assess the satisfaction of antiretroviral therapy (ART) services among People Living with HIV (PLHIV) in Baglung, Nepal.

Methods: A descriptive cross-sectional study design was used to carry out this study. The study population consisted of PLHIV attending an ART Centre in Baglung. Non-probability consecutive sampling technique was used to select 113 PLHIV. Validity ensured and pretested interview schedule with four-point Likert scale formats for measuring satisfaction was used to collect data from the respondents from June to December 2019. Both descriptive and inferential statistics such as the chi-square test was used to examine the association of the level of satisfaction of ART services with selected variables.

Results: Most (77%) of the respondents expressed satisfaction with ART service, reporting a satisfaction score of 43.12 ± 3.492 . Notably, young adults were more satisfied with ART services (OR=0.652, p=0.355). No significant association of socio-demographic variables were found with level of satisfaction with ART services.

Conclusion: The overall satisfaction level of PLHIV towards ART service was good in this study area. There was no association of socio-demographic factors with level of satisfaction of PLHIV with ART service.

Keywords: ART centre service, PLHIV, Satisfaction

INTRODUCTION

Contentment arises when expectations or desires are met. It manifests as a delightful sensation experienced upon the attainment of needs or the completion of desired actions. Perception of the patients on care received compared with the care expected is known as patients' satisfaction.¹ Antiretroviral drug therapy (ART) centres provide comprehensive care for people living with HIV/AIDS. Patient satisfaction, a significant indicator of quality services, is a major outcome measure of the care they receive.^{2,3} ART is a treatment that suppresses or stops the multiplication of HIV.⁴ Combination of ART is referred to as a highly active ART (HAART).⁵ In Nepal, among 22048 PLHIV enrolled in ART till July 2018, 75% are currently on ART, and 15% are dead.⁶

ART has enhanced the life expectancy of PLHIV, but individuals with HIV/AIDS face multiple forms of stigma, impacting their health and well-being.⁷ The rate of new HIV infections has declined and an estimated 19.1 million life-years have been saved by ART.⁸ ART has led to marked reductions in mortality and morbidity among HIV-positive individuals,

yet from the outset, optimal adherence to prescribed regimens has remained essential to its success.⁹

Clinicians liked having more privacy and less bias when services were integrated. Patients also did not mind if services were fully or partly integrated, and they had the same access to ART.¹⁰ Text messages help people with HIV to take their medicines.¹¹ This study aimed to assess the satisfaction towards ART services among PLHIV in Baglung.

METHODS

This research utilized a cross-sectional design and quantitative approaches to identify the satisfaction of individuals living with PLHIV who were receiving Antiretroviral Therapy from an ART centre in Baglung. A non-probability consecutive sampling method was used to select 113 respondents meeting the criteria.

Correspondence: Bishnu Subedi, School of Health and Allied Sciences, Faculty of Health Sciences, Pokhara University, E-mail:bishnu.subedi92.bs@gmail.com

An interview schedule was developed through review of literature and it consisted of questions related socio-demographic characteristics and satisfaction scale in four-point Likert Scale. Validity of the instrument was ensured by expert consultation. The instrument was then pretested in similar respondents as in the final study and Cronbach alpha of 0.75 was achieved ensuring internal consistency reliability of the satisfaction scale. Satisfaction measured at four-point Likert Scale, was changed into two categories with scores of 3 (satisfied) and 4 (strongly satisfied) as 'satisfied' and scores of 2 (dissatisfied) and 1 (strongly dissatisfied) as 'not satisfied'.

Ethical approval of the research proposal was taken from the Institutional Review Committee of Pokhara University and permission to collect data was also obtained from the selected ART center. Respondents were made clear about the purpose of the study, and the confidentiality of their information was assured and informed written consent was taken from each respondent prior to collecting data from them. Privacy was meticulously maintained to ensure the quality of data. Data were collected by interviewing the respondents in a separate room (i.e. waiting room) in the ART center. The period of data collection was from June 2019 to October 2019. Data entry and analysis were performed using Epi Data 3.1 and SPSS version 25, respectively.

RESULTS

Table 1: Socio-demographic Variables of Respondents (n=113)

| Variables | Frequency | Percentage |
|---|-----------|------------|
| Age (years) | | |
| 18-30 | 24 | 21.0 |
| 30-45 | 46 | 41.0 |
| 45-60 | 36 | 32.0 |
| 60+ | 7 | 6.0 |
| Mean:41, Median:42, SD:12.830, Min. 16, Max.:68 | | |
| Gender | | |
| Female | 61 | 54.0 |
| Male | 52 | 46.0 |
| Religion | | |
| Hinduism | 107 | 94.7 |
| Christianity | 4 | 3.5 |
| Buddhist | 2 | 1.8 |
| Ethnicity | | |
| Brahmin/Chhetri | 58 | 51.3 |
| Dalit | 30 | 26.5 |
| Disadvantages Janajati | 14 | 12.4 |
| Relative advantaged Janajati | 11 | 9.7 |
| Education | | |
| Illiterate | 17 | 15.0 |
| Informal Education | 23 | 20.4 |
| Basic Education | 44 | 38.9 |
| Secondary Education | 24 | 21.2 |
| Bachelor Level and above | 5 | 4.4 |
| Marital Status | | |
| Married | 83 | 73.5 |
| Unmarried | 18 | 15.9 |
| Widow/Widowhood | 12 | 10.6 |

| | | |
|-------------------------------|----|------|
| Occupation | | |
| Agriculture | 40 | 35.4 |
| Sales and Services | 20 | 17.7 |
| Unemployment | 17 | 15.0 |
| Pension | 14 | 12.4 |
| Daily wages/labor | 12 | 10.6 |
| Private Work | 7 | 6.2 |
| Government Service | 3 | 2.7 |
| Residence | | |
| Urban Municipality | 71 | 62.8 |
| Rural Municipality | 42 | 37.2 |
| Income - in NRs./month | | |
| <13,500 | 18 | 25.0 |
| 13,500-25,000 | 31 | 43.1 |
| >25,000 | 23 | 31.9 |

Mean:21611.11, Median:20,000, S.D.:10938.44, Min.:5000, Max.:50,000

*Out of 113 participants, 41 refused to report their income

Table 1 presents shows that the highest proportion (41.0%) of respondents was of the age group of 30-45 years. Majority (54.0%) were female. Religion-wise, almost all (94.7%) were Hindu. In terms of social background, 51.3% belonged to the Bhamin/Chhetri. Regarding education level 38.9% had basic education, while 15% had no formal education. Majority (73.5%) were married. Occupation-wise, highest proportion (35.4%) was involved in agriculture. Regarding location, 62.8% lived in urban municipalities. Highest proportion i.e. 43.1% earned between Rs.13, 500-25,000/month.

Table 2: Satisfaction of Respondents with ART Services n=113

| Variable | Mean satisfaction score \pm SD | % of respondents who were satisfied or fully satisfied |
|--|----------------------------------|--|
| Registration system | 3.22 \pm 0.417 | 113 (100%) |
| Waiting time | 3.40 \pm 0.492 | 113 (100%) |
| Attention towards clients | 3.44 \pm 0.499 | 113 (100%) |
| Time for clients | 3.49 \pm 0.502 | 113 (100%) |
| Politeness towards clients | 3.57 \pm 0.532 | 111 (98%) |
| Cooperation for clients | 3.53 \pm 0.519 | 113 (100%) |
| Confidentiality and privacy protection | 3.17 \pm 0.376 | 113 (100%) |
| Drinking Water and Sanitation | 3.08 \pm 0.331 | 111 (98%) |
| Laboratory service | 3.00 \pm 0.299 | 108 (95.6%) |
| Counselling service | 3.45 \pm 0.506 | 113 (100%) |
| Intervention and adherence service | 3.61 \pm 0.490 | 113 (100%) |
| Location accessibility | 2.73 \pm 0.735 | 83 (56%) |
| Availability of needed medicine | 3.43 \pm 0.498 | 113 (100%) |
| Overall satisfaction | 43.12 \pm 3.492 | 88 (77%) |

Table 2 shows that respondents expressed satisfaction across various aspects: registration, waiting time, client attention, time management, client cooperation, confidentiality, privacy protection, counseling, service intervention, and medication availability. Almost all (98%) were content with the courteous treatment as well as provision of drinking water and sanitation. All of them were satisfied with the availability of needed medicine. However, only 56% were content with the accessibility of the location. In terms of overall ART service, 77% of the respondents reported satisfaction. On average, the satisfaction score was 43.12 \pm 3.492.

Table 3: Association of Respondents' Level of Satisfaction with Socio-demographic Variables (n=113)

| Variable | Satisfaction level | | | | Total | χ^2 Value | p-value | COR |
|--|--------------------|------|-----------|------|----------|-------------------|---------|----------------------|
| | Not Satisfied | | Satisfied | | | | | |
| Age in years | | | | | | | | |
| ≤40 | 9 | 18.7 | 39 | 81.3 | 48(100) | 0.85 | 0.35 | 0.65 (0.26-1.62) |
| >40 | 17 | 26.2 | 48 | 73.8 | 65(100) | | | |
| Gender | | | | | | | | |
| Male | 12 | 23.1 | 40 | 76.9 | 52(100) | 0.00 | 0.98 | 1.00 (0.41-2.42) |
| Female | 14 | 23 | 47 | 77 | 61(100) | | | |
| Religion | | | | | | | | |
| Hindu | 25 | 23.4 | 82 | 76.6 | 107(100) | 0.58* | 1.00 | 1.52 (0.17-13.66) |
| Non-Hindu | 1 | 16.7 | 5 | 83.3 | 6(100) | | | |
| Ethnicity | | | | | | | | |
| Upper Caste | 12 | 20.7 | 46 | 79.3 | 58(100) | 0.36 | 0.54 | 1.30 (0.54-3.15) |
| Lower Caste | 14 | 25.5 | 41 | 74.5 | 55(100) | | | |
| Education | | | | | | | | |
| Literacy | 23 | 24 | 73 | 76 | 96(100) | 0.41* | 0.75 | 0.68 (0.17-2.57) |
| Illiteracy | 3 | 17.6 | 14 | 82.4 | 17(100) | | | |
| Marital Status | | | | | | | | |
| Married | 19 | 22.9 | 64 | 77.1 | 83(100) | 0.00 | 0.96 | 0.97 (0.36-2.62) |
| Single | 7 | 23.3 | 23 | 76.7 | 30(100) | | | |
| Occupation | | | | | | | | |
| Employed | 26 | 24.5 | 80 | 75.5 | 106(100) | 0.15* | 0.34 | 0.75 (0.67-0.84) |
| Unemployed | 0 | 0 | 7 | 100 | 7(100) | | | |
| Residence | | | | | | | | |
| Municipality (Urban) | 17 | 23.9 | 54 | 76.1 | 71(100) | 0.09 | 0.75 | 1.15 (0.46-2.88) |
| RM (Rural) | 9 | 21.4 | 33 | 78.6 | 42(100) | | | |
| Income (in NRs/month) | | | | | | | | |
| ≤13500 | 5 | 27.8 | 13 | 72.2 | 18 (100) | 0.42* | 0.75 | 1.346 (0.40-4.53) |
| >13500 | 12 | 22.2 | 42 | 77.8 | 54 (100) | | | |
| Support from family | | | | | | | | |
| Yes | 25 | 23.6 | 81 | 76.4 | 106(100) | 0.23* | 0.23 | 0.54 (0.06-4.70) |
| No | 1 | 14.3 | 6 | 85.7 | 7 (100) | | | |
| ART taking time (in months) | | | | | | | | |
| ≤12 | 2 | 22.2 | 7 | 77.8 | 9(100) | 1.00* | 0.65 | 0.95 (0.18-4.89) |
| >12 | 24 | 23.1 | 80 | 76.9 | 80(100) | | | |
| Time to reach ART (in hr.) | | | | | | | | |
| <1 | 12 | 27.9 | 31 | 72.1 | 43(100) | 0.94 | 0.33 | 1.54 (0.63-3.76) |
| ≥1 | 14 | 20 | 56 | 80 | 70(100) | | | |
| Activity for Adherence service | | | | | | | | |
| Yes | 25 | 23.4 | 82 | 76.6 | 107(100) | 1.00* | 0.58 | 0.65 (0.07-5.88) |
| No | 1 | 16.7 | 5 | 83.3 | 6(100) | | | |
| The desired service has been received | | | | | | | | |
| Yes | 24 | 21.8 | 86 | 78.2 | 110(100) | 0.13* | 0.13 | 7.16 (0.62-82.44) |
| No | 2 | 66.7 | 1 | 33.3 | 3(100) | | | |

*Fisher's exact test value

Table 3 provides insight into various factors like age, gender, religion, ethnicity, education, marital status, occupation, residence, income, family support, and duration of ART usage, travel time to ART center, adherence activities, and service satisfaction. Notably, these factors didn't show a significant link with satisfaction levels of ART service. However, patients who expressed satisfaction with ART services tended to be young adults (OR=0.652, p=0.355), not following the Hindu religion (OR=1.524, p=0.580), belonging to the upper caste (OR=1.309, p=0.548), having no formal education (OR=0.680, p=0.414), being married (OR=0.975, p=0.961), unemployed (OR=0.755, p=0.151), and not receiving family support (OR=0.540, p=0.230).

DISCUSSION

In this study, almost all of the respondents were satisfied with ART services in contrast the study conducted in Western Ethiopia only half of the clients were satisfied,¹² and also study in Eastern Ethiopia revealed that only two-thirds of the respondents were satisfied.¹³ In this study, there was no significant association of socio-demographic variables with satisfaction level on ART services which contrasts with the study in western Ethiopia, monthly income and consultation time were associated with satisfaction¹² as well as in the study conducted in India by Dixit et al.² age, education, adherence to service, and time to reach ART were associated with the satisfaction level and in age below 40 years was more, in education higher education was more, in adherence of service non-adherent was more associated to the satisfaction level on ART services. Similarly, the level of education status was associated with satisfaction level in a contrary study in Nigeria.¹⁴ This may be due to the variation in sample size.

Satisfaction level was comparable between males and females in this study, mirroring findings in a study conducted in India by Dixit et al. where both genders reported equal satisfaction.² Additionally, similar patterns emerged regarding satisfaction among the unemployed, with higher levels observed in both this study and Dixit et al.'s research in India.² This study showed that respondents from rural were more satisfied in a contrary study done in India participants from urban were more satisfied

due to getting services from close to home. In this study married and single participants were more or less equally satisfied which contrasts the study in India by Dixit et al.² married were more satisfied. In this study non-adherent respondents were more satisfied, similarly in the US by Singh et al.¹⁵ non-adherents were more satisfied which contrasts the study done in India by Dixit et al.² adherent respondents were more satisfied.

All the respondents were satisfied with the availability of medicine in this study. Similarly, in the study of South Africa, the availability of medications emerged as one of the primary factors contributing to satisfaction, similarly in Nigeria patients were also satisfied with pharmaceutical services^{3,14} which contrasts the study conducted in Northern Ethiopia¹⁶ clients were not satisfied with pharmaceutical services. In this study participants who had taken ART for below 12 months were more satisfied as in the study by Dixit et al. in India² respondents taking ART for above 12 months were more satisfied. In this study, the majority of the respondents were satisfied with the overall service, and this finding is consistent with the findings of a study conducted in India by Dixit et al as well as a study in South Africa by Bezuidenhout et al.^{2,3} In this study majority of the respondents were satisfied with the overall service., more than half of the respondents were satisfied with location accessibility, whereas in South Africa mostly two-thirds of the respondents were also satisfied with the closer the ART center to their homes.³ In this study, all of the respondents were satisfied with confidentiality and privacy protection from the ART center, as well as in the study of Addis Ababa, Ethiopia patients expressed satisfaction with the confidentiality measures implemented by healthcare providers.¹ In this study, almost all of the respondents were satisfied with laboratory services, likewise in Ethiopia majority of respondents expressed satisfaction with the laboratory services¹ in a contrary the study of India, only half of the respondents were satisfied with laboratory services.² In this study, all of the respondents were satisfied with the attention given by health professionals, likewise in the study of South Africa most of the respondents were satisfied with the attention given by doctors.³ In the study of India, only half of the respondents were satisfied on attention given by health professionals.²

CONCLUSION

PLHIV in general are satisfied with the ART services provided. Notably, higher satisfaction levels were reported among female PLHIV, younger individuals, and those belonging to the upper caste. Additionally, PLHIV with higher levels of education tended to exhibit increased satisfaction. The aspects contributing to elevated satisfaction scores included the effectiveness of the registration system, minimal waiting times, attentive service, timely client interactions, confidentiality and privacy measures, and the quality of counselling services. However, the location's accessibility received the lowest satisfaction score. Importantly, this study revealed no significant association between the socio-demographic factors and the satisfaction levels regarding ART services.

CONFLICT OF INTEREST

There is no conflict of interest.

LIMITATION OF THE STUDY

The findings may have limited applicability and generalizability to other people living with HIV (PLHIV) and other treatment centers.

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