Original Article

Client Satisfaction Levels in People Living with HIV/Aids in Punjab: A Cross-Sectional Study

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Abstract

Background: People diagnosed with HIV infection should be immediately linked to antiretroviral treatment (ART) and their treatment should be periodically monitored using clinical and laboratory parameters. If ART is not taken consistently, then it has not only detrimental effects on HIV suppression but also increases threat of HIV transmission to others. Early initiation, adherence to treatment and compliance to appropriate protocols are largely associated to client's satisfaction levels. In this study, satisfaction level of clients receiving treatment services at treatment sites is determined. It also includes the comparison to different exposures that may have been the source of acquiring virus, the active treatment; they are receiving at that point in time, associated co-morbidities and provision of treatment of co-morbidities, acquisition of sexual transmitted infection (STIs) and existing chronic diseases are also explored and analyzed.

Methodology: A cross-sectional study was carried out on total of 7007 HIV-positive patients who visited, followed-up and consulted the HIV treatment centers of Punjab AIDS Control Program (PACP), between July 2020 and August 2021. Participant's consent was sought and data was collected on client's level of satisfaction to staff-patient-communication, staff attitudes, privacy & confidentiality, staffing and amenities situations in the treatment centers. After taking informed consent, data was collected using a structured questionnaire by trained healthcare personnel. Collected data was analyzed using SPSS version 20.0 and clients' satisfaction was measured using frequencies and percentages. For association chi square test was applied and check significance at p-value less than 0.05.

Results: The extremely low levels of satisfaction were observed in staff attitude towards clients 30.45%, staffing 17.8% and amenities present in treatment centers 19.0% for medicine and 30.4% for waiting areas. Higher levels of satisfaction in staff-patient-communication was observed 91.7% (doctor discussing treatment protocols) and low level 60.1% where clients are able to inform about missed pills. The proportion of clients satisfied in terms of collective general treatment services was merely 40.0%. Significant association between gender and drug mode of administration at p-value .000.

Conclusion: Our results showed the need for healthcare workers to improve their attitudes towards clients, improvement in communication skills and training to address the client's arguments and also more human resource to cater for clients and the need to build better, secure and comfortable care facilities.

Keywords: Client Satisfaction, HIV/AIDS, Anti-retroviral treatment, Sexual transmitted infections.

Introduction

Human immunodeficiency virus (HIV) which can lead to Acquired Immunodeficiency Syndrome (AIDS) is now major public health problem of the world which despite several efforts at national and international levels has taken the form of HIV pandemic. [1-3] Since, beginning this menace has taken lives of more than tens of millions of individuals while an estimated 38 million people are currently living with HIV.[4] A vast number of people living with HIV or at risk for HIV infection do not have access to prevention, treatment and care especially in resource limited countries.[5]

Taqdees Iftikhar, Nazish Fatima, Naila Qazi, Saira Tasleem, Aisha Akber

The spread of COVID-19 across the world has hindered the efforts to ensure sustained supply of essential health services, including but not limited to testing, treatment, and prevention programs.[6] COVID-19 has decelerated the expected HIV public health response globally. UNAIDS has set new global 95–95– 95 target and to achieve these targets, countries will have to re-intensify energies and synergies to halt the upsurge of HIV infection.[7-9] The situation is more devastating in resource constraint, low -and middle-income countries, where already provision of aforementioned services are neither adequate nor regular. Pakistan's health system has a limited capacity to address the HIV spread in the country, with its current resources. There is an obvious scarcity of resources at the preventive, diagnostic and curative level.[10] Patients have obvious expectations for health services when in public sector hospitals and any drifted encounter of their needs may result in patient dissatisfaction.[11] Patient satisfaction is an essential and widely used metric of health-care quality. Clinical results, patient persistence, and medical negligence lawsuits are all influenced by patient satisfaction. It has an impact on the timely, effective, and patient-centered provision of high-quality health care. Patient satisfaction has been identified as an important factor in determining health outcomes. Furthermore, a contented patient is more likely to have a stronger and more enduring connection with their healthcare professional, resulting in enhanced compliance, continuity of care, and, ultimately, better health outcomes. It is likely that individuals who do not take ART due to dissatisfaction will develop resistant strains. As a result, patient satisfaction is unquestionably a relevant metric, and to the extent that it is based on accurate judgments by patients, it may give a direct signal of excellent care.[12] The national surveillance data suggests that the three major sources of spread of HIV in the country are commercial sex, injectable drugs and unsafe blood transfusions, amidst a weak national screening program for HIVs.[13] Thus, to make robust health policies and measures to increase utilization of primary health care services, patients' views and the understanding of populations' perceptions of quality of care are critical. Likewise, for prioritizing preventing strategies to curtail spread of HIV it is paramount to find the major sources of spread.[14]

Material and Methods

Source population:

A cross-sectional study was conducted on 7007 HIV-positive patients who visited 26 HIV treatment centers of Punjab AIDS Control Program (PACP), between July 2020 and August 2021. The same study subjects visited these centers for followed-up, on treatment, consultation and psychological support.

Data collection:

Participant's consent was sought and data was collected on client's level of satisfaction to staff-patient-communication, staff attitudes, privacy & confidentiality, staffing and amenities situations in treatment center. Data was collected using a structured self-administered questionnaire by trained health personnel. In this study, 7007 clients visiting HIV center were asked about their satisfaction to various services they received at the treatment centers. Comparison to different exposures that may have been the source of acquiring virus, the active treatment they are receiving at that point in time, associated co-morbidities, acquisition of sexual transmitted infection (STIs) and existing chronic diseases was also explored and analyzed.

Data Analysis:

Collected data was analyzed using SPSS version 20.0 and clients' satisfaction was measured using frequencies and percentages. For association chi square test was applied and check significance at p-value less than 0.05.

Results

Demographic characteristics:

The study was conducted on 7007 HIV positive clients who visited 26 treatment centers of Punjab, Pakistan (Table 1). Amongst the participants, Female patients were 1485(21.2%), male patients were 5383(76.8%) while 139(2.0%) were transgender population. The average age of all participants was found to be 32.4 years. In our study population, there were more married people (57.1%) than single (37.7%) while separated and widower were (2.7%) and (2.5%) respectively. In case of high risk groups, highest proportion was found among Injecting drug users (45.5%) than any other group.

Comparison of exposure

The comparison of possible exposures among 7007 participants included in this analysis are presented in Table 2. We calculated the proportion of clients that may have experienced either one of the three possible exposures, a sexual, an unsafe blood transfusion or needle sharing, assuming that all of these exposures are predictors of acquiring disease. Overall, needle sharing had the highest proportion with 3128 (44.6%) while 1864 (26.6%) subjects had sexual exposure, confirming this as the second riskiest behavior amidst the subjects and 336(22.6%) of respondents had blood transfusion exposure.

Active treatment

The active treatment provided to the subjects for HIV suppress, at the treatments centers was also appraised. The analysis is presented in Table 3. Almost all of the client's 7007(100%) were on oral therapy. A significant number; amounting to 3273(46.7%) received intravenous therapy as well. Seemingly high number of males 3247(60%), were on intravenous therapy. While no transgender was at the time, on intravenous route of treatment. Significant association between gender and drug mode of administration at p-value .000.

Table I. Characteristics.	
Gender	
Female	1485(21.2%)
Male	5383(76.8%)
Transgender	139(2.0%)
Total	**7007 (100%)**
Age	
Female	32.3±12.4
Male	32.4±10.2
Transgender	32.8±9.8
Total	**32.4±10.7**
Marital status	
Single	
Female	193(13.0%)
Male	2353(43.7%)
Transgender	96(69.1%)
Total	**2642(37.7%)**
Married	
Female	1133(76.3%)
Male	2831 (52.6%)
Transgender	37 (26.6%)
Total	**4001(57.1%)**
Separated	
Female	14(0.9%)
Male	173(3.2%)
Transgender	5(3.6%)
Total	**192(2.7%)**
Widow/er	
Female	145(9.8%)
Male	26(0.5%)
Transgender	1 (0.7%)
Total	**172(2.5%)**
No of children	
Female	2.21±2.18
Male	1.24±1.83
Transgender	0.78±1.42
Total	**1.44±1.94**
Client category	
General Population	
Female	286(19.3%)
Male	781(14.5%)
Transgender	0(0.0%)
Total	**1067(15.2%)**
Injection Drug User (IDU)	
Female	36(2.4%)
Male	3148(58.5%)
Transgender	1(0.7%)
Total	**3185(45.5%)**
Highly Suspected Client	
Female	968(65.2%)
Male	928(17.2%)
Transgender	4(2.9%)
Total	**1900(27.1%)**
TB Patients	
Female	27(1.8%)
Male	69(1.3%)
Transgender	0 (0.0%)
Total	**96(1.4%)**
Trucker	
Female	0(0.0%)
Male	53(1.0%)
Transgender	0(0.0%)
Total	**53(0.8%)**
Jail inmates	
Female	1(0.1%)
Male	144(2.7%)
Transgender	0(0.0%)
Total	**145(2.1%)**
Female Sex Worker (FSW)	
Female	35(2.4%)
Male	4(0.1%)
Transgender	0(0.0%)
Total	**39(0.6%)**
Male Sex Worker (MSM/MSW)	
Female	132(8.9%)
Male	256(4.8%)
Transgender	2(1.4%)
Total	**390(5.6%)**

Table II. Gender wise Comparison of Exposure to HIV Infection.

Gender	Female (Number,%)	Male (Number, %)	Transgender (Number,%)	Total (Number, %)
Male, female, Transgender	0, (0.0)	9,(0.2)	1, (0.7)	10, (0.1)
Male , female	0,(0.0)	48(,0.9)	8,(5.8)	56, (0.8)
Female	8,(0.5)	908,(16.9)	2,(1.4)	918,(13.1)
Male	434,(29.2)	174,(3.2)	85,(61.2)	693,(9.9)
Husband	103,(6.9)	0,(0.0)	0,(0.0)	103,(1.5)
Spouse	35,(2.4)	5,(0.1)	0,(0.0)	40,(0.6)
Transgender	0,(0.0)	6,(0.1)	38,(27.3)	44,(0.6)
Blood transfusion	336,(22.6)	599,(11.1)	8,(5.8)	943,(13.5)
Needle sharing	31,(2.1)	3096,(57.5)	1,(0.7)	3128,(44.6)

Table III. Active Treatment.

Gender	Drug mode of Administration Anti-retroviral Therapy (ART)	Intravenous drug use (IDU)	p-value
Male	5383(100.0%)	3247(60.3%)	
Female	1485(100)	26(1.8)	0.00
Transgender	139(100.0%)	0(0.0%)	
Total	**7007(100.0%)**	**3273(46.7%)**	

Table IV. Associated Co-morbidities.

	Co-morbidities			
Gender	HCV	HBV	TB	p-value
Female	330(22.2%)	24(1.6%)	212(3.0%)	
Male	2730(50.7%)	181(3.4%)	294(5.5%)	0.21
Transgender	22(15.8%)	7(5.0%)	8(5.8%)	
Total	**3082(44.0%)**	**212(3.0%)**	**366(5.2%)**	

Table V. Comparison of Sexually Transmitted Diseases.

Gender	Gonorrhea	Chlamydia	Syphilis	Herpes	Papilloma
Female	2(0.1%)	1(0.1%)	3(0.2%)	1(0.1%)	1(0.1%)
Male	14(0.3%)	2(0.0%)	36 (0.7%)	14(0.3%)	5(0.1%)
Transgender	0(0.0%)	0(0.0%)	11 (7.9%)	2 (1.4%)	1(0.7%)
Total	**16(0.2%)**	**3(0.0%)**	**50(0.7%)**	**17(0.2%)**	**7(0.1%)**

Associated Co-morbidities

All the study subjects were also evaluated for associated co-morbidities. For this, Hepatitis C Virus (HCV), Hepatitis B Virus (HBV) and Tuberculosis (TB) were considered. The analysis is illustrated in Table4. Results revealed that overall HCV was the most prevalent co-morbidity in the participants under study and there were significant association founded between gender and morbidities at p-value 0.021.

Comparison of Sexually transmitted diseases (STDs)

The occurrence of sexually transmitted infections in subjects was also explored (Table 5). It was also important to look for these infections as one of the probable risks to acquiring HIV is unsafe sexual contacts. When compared, all common sexually transmitted infections fell under the range of 1%, in all genders. Eleven 11 (7.9%) was the highest observed number, that was for syphilis infectivity currently present in transgender.

Table VI. Comparing Chronic Diseases.

Gender	Pulmonary TB		Extra pulmonary		Diabetes		HTN		IHD		p-value
	Count	%in gender	Count	% in gender	Count	% in gender	Count	% in gender	Count	% in gender	
Male	144	2.70%	19	0.40%	17	0.30%	8	0.10%	3	0.10%	
Female	35	2.40%	3	0.20%	9	0.60%	5	0.30%	1	0.10%	0.00
Transgender	5	3.60%	0	0.00%	0	0.00%	0	0.00%	1	0.70%	
Total	184	2.60%	22	0.30%	26	0.40%	13	0.20%	5	0.10%	

Satisfaction Survey:

In this study, satisfaction level was indirectly determined by inquiring about availability of treatment provider/doctor during of visits, tests, change of status, receiving of HIV and co-morbidities medicine. Regular accessibility of treatment provider/doctor during visits and frequency of tests along with other indicators were considered as a proxy indicator to ensuring high level of satisfaction. The results are described in Table 7 -18 in supplementary file). With availability of doctor, only Seventeen percent (17.8%) of clients said they find doctor on every visit (as shown in Table 7). In response to the frequency of testing, more than half (59.40%) respondents said it was on monthly basis. Those responded as quarterly were two thousand seven hundred and forty-eight 2748 (39.20%) (Table 8). Almost one-third, five thousand and forty-eight 5048 (72.0%) of the subjects informed that the HIV results of tests and their status is changed after one week. The response was almost consistent amongst all three genders (Table 9). A significant number, which was more than one third (80.0%) informed that they received incomplete medication (Table 10 and 11).

Staff- Patient communication

In staff-patient communication, doctor/staff discussion about the treatment protocols with patients was included. Substantially high number of respondents, 6431 (91.77%) agreed that healthcare provider fully discussed the treatment protocols. Almost similar response was received from across gender (Table 12). When asked about patients informing doctor /healthcare staff about missing pills, out of a total 7007 subjects only sixty percent (60.11%) n=4212 responded that they do. This response was also comparable amongst all genders under this study (Table 13). In doctor patient respect factor, less than half of the clients responded that the staff showed respect towards them. Strikingly, corresponding results were found amidst all genders, where 31% females, 30% males and only a quarter of

transgender (26%) said they were shown respect by doctor/staff members (Table 14).

Maintaining Privacy and Confidentiality

In terms of privacy and confidentiality, it was observed that almost 2/3rd (73.94%) respondents were sure that their information is kept confidential, while 26.05%, said it was not. However, as opposed to confidentiality only 22.79% clients said that discussion takes place in privacy. (Table 15 and 16).

Provision of waiting area and Psychological Counseling

With regards to waiting area, less than 1/4th 1629 (23.25%) of respondents said they were provided with waiting area, while more than 3/4th, responded otherwise (Table 17). When asked if the clients were provided with psychological counseling and support to cope up with stress, a large proportion 76.75% responded that they were not given any such services. Whereas fewer than 1/4th said they were offered this facilitation (Table 18).

Discussion

UNAIDS report on the global AIDS epidemic revealed that 2020 targets will not be met because of deeply unequal success. In addition, the response could be set back further, by 10 years or more, if the COVID-19 pandemic results in severe disruptions to HIV services.[11,13,14] The fundamental element to ensure long term retention in care and desired adherence to treatment is without a doubt, client's satisfaction. To bring down the incidence and prevalence of HIV, it is therefore imperative to safeguard client satisfaction to a level where predicted impact is achieved. Program directors while exerting efforts to scale up services both, longitudinally and vertically, must also be cognizant of the various aspects of a treatment site that would affect client's satisfaction.[15-17] Due to associated stigma of HIV, client satisfaction becomes more essential. it plays an imperious part in increasing number of PLWH to seek

care, as new patients mostly reach the treatment site from informal discourse.[18,19] Various infections are transmitted through unsafe sexual practices, behaviors or exposures. With the advancements in antiretroviral therapy for HIV/AIDS and people living with HIV/AIDS (PLWHA) in the mid-1990s, it had a significant effect on the life expectancy. If the adherence level is appropriate, a person with HIV/AIDS is expected to live into seventies. The effects of antiretroviral drugs play their role on body metabolism, leading to more chances of PLWHA to acquire these chronic ailments.[20] Diabetes, Hypertension and Ischemic Heart Diseases (IHD)/stroke are all closely associated with metabolic disorders/syndromes. The most known of metabolic syndromes include abdominal obesity, atherogenic dyslipidemia, raised blood sugar, insulin resistance, pro-inflammatory and prothrombotic states.[20] Various disorders, eventually leading to these syndromes are one of the adverse side effects of antiretroviral therapy as well. One of the effects of these antiretroviral drugs is long term persistent low-level viremia that attributes to long-term inflammation. This submits the fact that while PLWHA may have equal opportunity of living same years as people without HIV/AIDS, however they maybe more susceptible to acquiring many chronic illnesses.[22-24] There is positive relationship between AIDS and IDU (injection drug users).[25] Significant associations was also founded between gender and co-morbidities like TB, HCV and HBV at p-value 0.021. Furthermore, compared to male and female gender, transgender proved to be responsible for the considerably increased infectivity of TB and HBV.[26] All sexually transmitted diseases (Gonorrhea, Chlamydia, Syphilis, Herpes, Papilloma) were mainly found in females.[27,28] We assessed the proportion of clients who expressed satisfaction in general services, with staff attitudes towards clients, privacy and confidentiality in handling clients and their information at the center, staffing and amenities situation of the center. We also assessed if the clients are provided with psychological services at the site and also if there is provision of treatment of co-morbidities at these sites. We documented that the proportion of clients satisfied in terms of collective general treatment services offered in these centers, was merely 40.0%. Dissatisfaction with particular aspects of care services such as the respect health workers showed to patients, taking care of privacy, staff-patient-communication, staffing, medicine supply, provision of psychological support, and amenities situation of the center were also documented. Highest - level of satisfaction was observed in doctor informing about

treatment protocols. However, doctors' availability was reported as 17.80% only.

Conclusion

Low level of satisfaction was noticed in staff attitude towards clients, staff-patient-communication, and staffing and amenities situation of treatment centers. Finally, provision of complete medicine for HIV requires attention of HIV Public Health Program for ensuring sustained supply and adequate forecasting. While providing medicine for co-morbidities linking HIV clients to psychological care requires advocacy of highest level; influencing policy makers to develop a strong referral mechanism. Provided the fact that provision of a dedicated psychologist at each treatment site due to financial implication, is not feasible.

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