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Assessment Of Client Satisfaction And Service Quality At Integrated Counseling And Testing Centers (ICTCs) In Udaipur District Of Rajasthan, India

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Abstract:
Introduction: *HIV/AIDS continues to be a major global public health challenge, with significant prevalence in low- and middle-income countries, particularly in sub-Saharan Africa. As of 2016, India ranks third globally in the number of people living with HIV, with an estimated 2.1 million cases and a declining trend in new infections and AIDS-related deaths due to national control programs.*
Objective: *Integrated Counseling and Testing Centres (ICTCs) in Udaipur district, Rajasthan, were evaluated to assess service quality, counseling skills, and client satisfaction.*
Materials and Methods: *The study, conducted from January to October 2017, involved 14 ICTCs and 150 clients.The inclusion criteria specified that ICTCs must have been operational for at least 12 months, and counselors must have been posted for a minimum of 6 months. Clients needed to have participated in either pre-test or post-test counseling sessions. Data were gathered using a predesigned semi-structured tool based on "Tools for Evaluating HIV Voluntary Counseling and Testing" by UNAIDS (2000). This tool included a service evaluation schedule, a client satisfaction schedule, and an ICTC supervisory visit checklist, following the HCTS guidelines.*
Results: *Findings revealed notable staffing shortages, particularly in counselors and laboratory technicians, and infrastructure inadequacies, though privacy and general services were maintained well. Counseling skills varied, with younger counselors showing better proficiency due to adequate training. Client satisfaction was high, with 90% expressing overall satisfaction with counselors.*
Conclusion: *The study underscores the need for improved infrastructure, consistent training, and heightened awareness of ICTC services among high-risk populations to enhance service quality and client satisfaction.*
Key Word: *HIV/AIDS; ICTC services; Client satisfaction; Counseling skills*

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I. Introduction

Global HIV/AIDS Overview

HIV remains a significant global public health challenge. As of 2016, an estimated 36.7 million people, including 1.8 million children, were living with HIV, with a global prevalence of 0.8% among adults. Approximately 30% of these individuals are unaware of their HIV status.[1] Since the epidemic began, around 78 million people have contracted HIV, and 35 million have died from AIDS-related illnesses. In 2016 alone, 1 million people died from such illnesses.[2] The vast majority of HIV-positive individuals reside in low- and middle-income countries, with sub-Saharan Africa being the most affected region. Approximately 25.5 million people live with HIV in this area, with 19.4 million in East and Southern Africa, which accounted for 44% of new HIV infections in 2016.[3]

Global Distribution of HIV (2016 Data)[4]
- East and Southern Africa: 19.4 million
- Western and Central Africa: 6.1 million
- Asia and Pacific: 5.1 million

- Western and Central Europe and North America: 2.1 million
- Latin America and Caribbean: 2.1 million
- Eastern Europe and Central Asia: 1.6 million
- Middle East and North Africa: 0.23 million

New HIV Infections

In 2016, there were approximately 1.7 million new HIV infections, a decrease from 2.1 million in 2015. Between 2010 and 2015, new adult infections remained relatively static, but there was an 11% decline from 1.9 million in 2010 to 1.7 million in 2016.[5] New infections among children halved from 300,000 in 2010 to 160,000 in 2016. However, more efforts are needed to enhance HIV knowledge and testing among adolescents and young adults, particularly young women, who account for 59% of new infections in the 15-24 age group.[6]

HIV in India

India has the third highest number of HIV-positive individuals globally, with an estimated 2.1 million people living with the virus in 2016, following South Africa (6.3 million) and Nigeria (3.2 million).[7] The HIV prevalence in India was approximately 0.3% in 2016, translating to 2.1 million people due to the country's large population. In the same year, an estimated 62,000 people died from AIDS-related illnesses.[8] India's HIV epidemic is slowing, with a 32% reduction in new infections (80,000 in 2016) and a 54% decline in AIDS-related deaths from 2007 to 2015.[9]

According to the 2015[10] HIV Estimations, there were approximately 2.1 million people living with HIV/AIDS in India, with an adult (15-49 years) prevalence rate of 0.26%. Children under 15 years accounted for 6.54% of cases, while 40.5% of infections were among females. In 2015, there were around 86,000 new HIV infections, showing a 66% decline from 2000 and a 32% decline from 2007. The reduction is attributed to the National AIDS Control Programme (NACP) interventions and prevention strategies. Since the introduction of free Anti-Retroviral Therapy (ART) in 2004, approximately 450,000 lives have been saved by 2014. However, challenges remain, including the slower pace of new infection reductions and the heterogeneous spread of the epidemic across different regions and populations.

Integrated Counseling and Testing Services (ICTS)

Individuals infected with HIV do not immediately develop AIDS. The immune system fights the virus, delaying AIDS onset by 5-7 years. Early detection and awareness of one's HIV status are crucial to prevent transmission and access timely treatment. In India, HIV Counseling and Testing Services began in 1997 and have since expanded to over 19,800 centers nationwide, including 5,385 Stand-Alone ICTCs, 11,780 Facility-ICTCs, and 2,581 PPP-ICTCs. This scale up was guided by the "Operational Guidelines for Integrated Counselling and Testing Centres 2007", where the Programme was able to detect 67% of the estimated 2.12 million PLHIVs in the country by 2015.[3]

ICTCs aim to detect HIV early, provide information on transmission and prevention, and link individuals to care and treatment services. There are two main types of ICTCs: Fixed-facility ICTCs, which can be stand-alone or facility-integrated, and Mobile ICTCs, which bring services to high-risk and hard-to-reach populations.[11,12]

HIV Counseling

HIV/AIDS counseling involves confidential discussions between clients and counselors to provide information and promote behavior change. It includes pre-test counseling to explain the testing process and assess risk, post-test counseling to help clients understand and cope with results, and follow-up counseling to reinforce safe behaviors and link to support services.

ICTC Services in Rajasthan

The Rajasthan State AIDS Control Society (RSACS)[13] emphasises identifying HIV-positive cases and ensuring quality of life through care, support, and treatment. As of 2015, ICTCs are available in all medical colleges and 54 district hospitals. Voluntary counseling and testing services began in 1999, and counseling and testing are key entry points for HIV prevention and care. Client satisfaction and counseling skills are crucial for effective service delivery and overall satisfaction.

Counseling Skills and Client Satisfaction

Assessing patient satisfaction is an essential part of evaluating healthcare delivery. In India, studies have focused on patient satisfaction in various healthcare settings, including DOTS centers and primary health

care. Client satisfaction reflects service quality and helps assess healthcare performance. This study aims to evaluate counseling skills, logistics, infrastructure, and client satisfaction at ICTCs in Udaipur district.

By focusing on these aspects, the study seeks to enhance the effectiveness of ICTCs and improve client experiences in the region. The current study aims to evaluate the ICTC services according to operational guidelines, assess the counseling skills of counselors at ICTC centers, and determine the satisfaction of beneficiaries regarding services.

II. Materials And Methods

This study was conducted in Udaipur city, located in southern Rajasthan, with a population of 451,100. Udaipur district is divided into 11 tehsils and 2,123 villages.[14] It was a cross-sectional descriptive study carried out from January 2017 to October 2017. For the facility survey, 14 out of the 17 ICTC centers in Udaipur District that met the inclusion criteria were universally sampled. For the client satisfaction survey, a sample size of 150 was calculated using OpenEpi, based on a 73.3% satisfaction level from a previous study.[15] Clients willing to participate after giving consent were included, with random sampling used if the number of clients exceeded the sample size. Inclusion criteria for ICTCs required centers to be operational for over 12 months and counselors to have been posted for over 6 months, while clients had to have attended either pre-test or post-test counseling sessions. Data were collected using a predesigned semi-structured tool, "Tools for Evaluating HIV Voluntary Counseling and Testing" by UNAIDS (2000)[16], which included a service evaluation schedule, client satisfaction schedule, and an ICTC supervisory visit checklist provided in HCTS guidelines.[17] Data collection involved interviews and observations, and ethical approval was obtained from the Institutional Ethics Committee, RNT Medical College, Udaipur, along with permissions from relevant authorities. Data were entered into Microsoft Excel 2007 and analyzed using percentages, proportions, means, and standard deviations, with significance inferred at $p < 0.05$. Personal details such as age, sex, residence, marital status, education, occupation, family members, and per capita monthly income were recorded. Age was noted in completed years; religion and caste as belief systems; occupation as the trade or profession; and education levels from illiterate to postgraduate. Socio-economic status was determined using B.G. Prasad's scale,[18] adjusted for 2017 CPI values. Family types were categorized as nuclear, joint, or three-generation, and marital status followed Census of India (2011) definitions, including categories for married, unmarried, widow/widower, and staying alone.

III. Results

A. Evaluation of ICTC centers according to guideline and checklist

In the evaluation of ICTC centers in Udaipur district, a total of 17 centers were assessed, with a majority located in rural (41.2%) and tribal (35.3%) areas. This distribution ensures a comprehensive representation across different localities, allowing for a robust analysis encompassing varied demographics. Staffing levels were examined against guidelines, revealing that while medical officers met the sanctioned posts (100%), there was a notable shortage in counsellors (17.6%) and laboratory technicians (77.8%). Gender-wise, most medical officers and counsellors were male, highlighting a gender disparity in staffing within these centers.

Infrastructure and logistics at counseling premises were assessed for adequacy. Notably, while privacy measures were well-maintained (85.7%), there were shortcomings in facilities such as waiting areas (71.4% inadequate) and availability of IEC materials (64.3% inadequate). Additionally, laboratory facilities across these centers showed mixed results, with essentials like refrigerators and centrifuges being largely available (92.9%), but with significant gaps in SOP display (57.1%) and sample transport boxes (35.7%).

The services offered at these centers were comprehensive, with all providing pre-test counseling, blood collection, and post-test counseling for general clients. However, services specific to high-risk groups were limited, with only 14.3% of centers offering specialized care. Referral services were well-established for medical needs (100%) and TB cases (100%), yet social services (50%) and NGO referrals (35.7%) showed lower integration. The centers also managed substantial client loads, notably with the highest numbers observed in Vallabhnagar for both general (11.3%) and pregnant (11.3%) clients.

B. General profile of counselors and their Counselling skill assessment

In assessing the general profile and counseling skills of counselors across ICTC centers in Udaipur district, it is observed that the majority of counselors fall within the 25-35 age group, with 62.5% of males and 57.1% of females in this category. Notably, no counselor is above 45 years old, highlighting a younger workforce in this role with a mean age of 32.3 years. Regarding experience, a significant proportion (66.6%) of counselors have between 5-10 years of experience, with most females (87.5%) falling into this category, including one female counselor with over 10 years of experience.

All counselors (100%) have undergone induction training, while 73.3% have participated in refresher training. However, no recent refresher training has been conducted in the past 3 years, indicating a potential gap in ongoing professional development.

In terms of counseling skills, centers varied in their proficiency levels. Satellite Hiran Magri-6 emerged with the highest overall counseling score (83.3%), followed closely by Vallabhnagar (79.2%) and Bari (77.8%). Overall, centers scored highest in handling special circumstances (81.4%), followed by giving information (74.4%) and gathering information (70.6%). However, functional interpersonal relationships scored lower (66.7%), suggesting an area for potential improvement.

During counseling sessions, counselors commonly utilized skills such as active listening (86.7%), being supportive and non-judgmental (80%), and greeting clients (73.3%). Conversely, skills such as introduction (53.3%), clarification (6.7%), and summarizing (13.3%) were less frequently employed. Counselors who underwent both induction and refresher training demonstrated higher counseling scores (>53.2) compared to those who received only induction training (25%). This underscores the importance of ongoing training and updates in maintaining and improving counseling skills among ICTC counselors in Udaipur district.

C .General profile of clients, their reasons of attending ICTC and client satisfaction

A total of 150 clients participated, with 54.7% being males and 45.3% females. The participants were predominantly aged between 20-35 years (31.3%), reflecting the age group at higher risk for sexually transmitted infections (STIs) and those attending Antenatal Care (ANC). Regarding locality, 40% of participants were tribal, 33.3% urban, and 26.7% rural. Illiterate and those with primary education comprised the majority (54%), while only 4% had graduated. Maritally, 54.7% were married and living with their spouse, while 13.3% of females were widowed.

Regarding the source of information about ICTC, 91.3% of clients were referred by health workers, demonstrating the pivotal role of healthcare providers in guiding clients to ICTC services. Reasons for attendance were similar among genders and education levels, with no statistically significant differences found.

Client satisfaction with counselor behavior was high, with 90% satisfied overall. Satisfaction levels were consistent across genders and educational backgrounds. However, significant differences were observed in satisfaction with audiovisual privacy (68.7% overall satisfaction), where males (76.8%) reported higher satisfaction compared to females (58.8%). Counseling satisfaction was notably high (81.3%), significantly favoring females (94.1%) over males (70.7%).

Clients appreciated counselors for listening calmly (54.7%) and understanding their situations (16%). However, concerns included counselors appearing hurried (42%) or lacking confidence (6.7%). Notably, 20% of clients reported no negative perceptions of their counselor.

Table 1: Relation between Client Satisfaction for counseling and counseling skills

Counselling skills score	Client Satisfaction		Total	P value
Counselling skills	Satisfied	Not Satisfied		
Above average >53.2	71(88.8)	9(11.2)	80(100)	**0.022 (Significant)**
Below average <53.2	51(72.9)	19(27.1)	70(100)	
Total	122(81.3)	28(18.7)	150(100)	

Table 1 shows relation between Client Satisfaction for counseling and counseling skills. 80 clients were counseled by counseller with above average counseling skills, out of which 71(88.8%) were satisfied and 9 (11.2%)were not satisfied. .70 clients were counseled by counsellors with below average counseling skills, out of which 51(72.9%) were satisfied and 19(27.1%) were not satisfied. The difference was found statistically significant with p=0.022.

IV. Discussion

Integrated Counselling and Testing Centres (ICTCs) are crucial for providing prevention, care, and support services for individuals affected by HIV/AIDS as well as the general population. This study aimed to evaluate the ICTCs in Udaipur, Rajasthan, focusing on infrastructure, staffing, services, utilization levels, quality of counseling, and client satisfaction.

The study included 17 ICTC centers in Udaipur district, but only 14 centers were evaluated because these had counselors who had been working there for more than six months. These 14 centers employed 15 counselors, as one center had two counselors. The primary focus was on the skills of the counselors and client satisfaction, hence the selection criteria.

Evaluation of ICTC Centers

The evaluation covered all 17 centers, with a significant representation from rural (41.2%) and tribal (35.3%) areas, ensuring diverse geographical coverage. This study's inclusion of rural and tribal areas contrasts with similar studies, such as those by Chourasiya et al. (2016),[15] which lacked tribal representation, Papanna MK et.al[19] (2012) selected 12 ICTC centers in their study and Vinoth Gnana et.al.[20] (2014) a study from Delhi, India took 20 ICTCS in their studies, which are near to my study.

According to the National HIV Counseling and Testing Services (HCTS)[21] guidelines of December 2016, each ICTC should have an officer in charge and, where necessary, additional counselors based on client load. In this study, there was a 17.6% shortage of counselors and a 77.8% shortage of laboratory technicians compared to sanctioned posts.

Regarding infrastructure, out of the 14 evaluated centers, 8 (57.1%) lacked adequate counseling space, and most centers (71.4%) lacked sufficient waiting areas. However, privacy was maintained in 85.7% of the centers, with only 2 centers lacking private counseling rooms.

Counseling Skills and Services

The study revealed that the quality of counseling varied, with significant gaps noted in the consistency and thoroughness of counseling sessions. Counselors often missed key components such as introductions and summarizing, indicating a need for improved training and adherence to guidelines.

All 15 counselors had received induction training, but only 11 (73.3%) had undergone refresher training, with no recent refresher training in the last three years. This gap likely contributed to the inconsistency in counseling quality observed in the study. In our study Mean score of functional inter personal relationship is 10.0 (66.7) out of total score 15, which is less than gathering information 12.7 out of 18 (70.6%), giving information 13.4 out of 18 (74.4), handling special circumstances 17.1 out of 21 (81.4). Magongo et al[22]. (2002) and Anderson and Louw-Potgieter[23] (2012) found similar findings in assessments conducted in South Africa whereby important components of post-test counseling were not discussed.

Client Demographics and Satisfaction

The study's participants included 82 males (54.7%) and 68 females (45.3%), with most participants aged between 25-30 years. This age group aligns with the high-risk and sexually active demographic targeted by ICTCs. The majority of participants were from tribal areas (40%), followed by urban (33.3%) and rural areas (26.7%). Chennaveerappa PK et al.[24](2011) which were corroborative to our study 52.1% were males and 47.9% were females. A majority of the seropositive subjects, i.e. 789 out of 945, belonged to the age group of 15–49 years i.e. (78.6%).

Educationally, most participants were either illiterate (28.7%) or had only primary education (25.3%). A significant portion of the participants belonged to lower socioeconomic classes, with 85% from Classes III, IV, and V.

The main source of information about ICTC services for clients was health workers (91.3%), highlighting the critical role of health professionals in disseminating information about HIV services. In a study in western Uganda[25] the majority of the clients received information about VCT through the health workers (75.2%) which was slightly lower than our study, similarly in a study in Egypt[26] the main sources of information about VCT centers were relatives/friends (32.7%), posters (24.5%), health care workers (23.4%) and lectures (20.0%). Radio, newspapers and the telephone hotlines were the lowest sources (1.9%-2%). The proportion of provider initiated clients in other studies varied between 11% and 50%.[24,27] Surprisingly, among the direct walk-in clients, only 13.3% visited the ICTC due to suspected high risk behavior. This compels the need of creating further awareness about HIV counseling and removing various barriers of clients in visiting ICTC. Due attention has to be paid to increase the direct walk-in clients, as the main purpose of establishment of ICTC could not be served.

Client satisfaction was generally high, with 90% satisfied with the counselors' behavior and 80.7% satisfied with the waiting times. Similar results of client satisfaction were found in studies done by I.A. Kabbash,et al[26] (2010), Vinoth Gnana et.al[20] (2014), Sanjay Kumar Chourasiya et.al[15] 2016, Gladys Matseke *et.al.[28] (2016).* However, few studies done by Papanna MK et.al (2012)[78] , Lyatuu MB et al (2008)[29], Ginwalla SK et al (2002)[30] reported low level of client satisfaction and reasons were due to untrained counselors, low education level of clients, lack of trust in confidentiality, and other barriers.

V. Conclusion

The evaluation of ICTC centers in Udaipur district highlights significant staffing shortages in counselors and laboratory technicians, gender disparities among staff, and infrastructure inadequacies, particularly in waiting areas and IEC materials. While privacy measures and general services are well-maintained, specialized care for high-risk groups and integration with social services are limited. Younger counselors with adequate experience and training demonstrate higher proficiency, though recent refresher training is lacking. Despite these challenges, client satisfaction remains high, with notable differences in satisfaction levels between genders, emphasizing the need for targeted improvements in staffing, infrastructure, and training to further enhance service quality and client satisfaction.

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