

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

Haleema Khatoon¹, Fared Aslam Minhas²

ABSTRACT

Objective: The objective of this study was to examine the effect of psycho-social rehabilitation outcome on the psychological issues of HIV patients, during one year study. **Method:** This study was conducted at Institute of Psychiatry, Benazir Bhutto Hospital Rawalpindi. Sample was solely selected from injecting drug users (IDUs). It was both mixed method approach, based on pre and post testing. **Result:** Statistical analysis showed significant results and describe the marked reduction in psychological symptoms. **Conclusion:** Although symptoms of HIV-AIDS is difficult to revert but the associated psychological symptoms can be catered by strengthening the coping skills of the patient.

Keywords: HIV-AIDS, Psychological Issues, Psycho-Social Rehabilitation, Pre-Post Assessment, Intravenous Drug Users (IV)

In Pakistan the number of heroin dependents is 860,000 and the injecting drug users are estimated to be 430,000. About 5%-10% of HIV infections are attributable to injecting drug use (Degenhardt & Hall, 2012). Pakistan is declared as an HIV epidemic country (UNODC Drug Report, 2013) and there is a high co-relation between injecting drug use and HIV which is apparent in various studies across the region. Estimates of the prevalence among people who inject drugs are over 40% in many parts of the world (Bulletin of WHO, 2011). Pakistan is one of the three countries in Asia that report an expanding HIV epidemic. The number of people that became newly infected with HIV was higher in 2012 than the number of new infections in 2011. The HIV epidemic in Pakistan is mainly driven by high risk injecting and sexual behaviors among people who inject drugs (PWID). It has been estimated that 85,000 people (range: 48,000 - 160,000) were living with HIV in 2012 (UNAIDS, 2013).

¹ Clinical Psychologist & Research Associate at Institute of Psychiatry & WHO Collaborating Centre, Benazir Bhutto Hospital, Rawalpindi Pakistan

² Professor of Psychiatry, Head Institute of Psychiatry & WHO Collaborating Centre, Benazir Bhutto Hospital, Rawalpindi, Pakistan

*Corresponding Author

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

A report published by National AIDS Control Program (2008), confirms that the overall prevalence of HIV among 15-49 year olds is low at < 0.1% (range: < 0.1- 0.2 %) HIV prevalence among street based people who inject drugs (PWID) ranges from 3.3 % in Pak-Pattan to 53 % in Faisalabad (HIV/AIDS Surveillance Project, Round IV, GoP). In 2012 an estimated 19,000 people became newly infected with HIV in Pakistan (UNAIDS, 2013). According to a household survey supported by UNODC Pakistan Country Office in 2012 the annual prevalence of injection drug use among people aged 15 and 64 is 0.4% (range: 0.2% - 0.6%). This translates to approximately 430,000 people who inject drugs (range: 190,000 to 657,000).

Kumar (2002) reports 90% of worlds opium is being produced in Asia, and 60% of world opium users live in Asia, overall, however, there is a sub level of coverage in terms of treatment, outreach work, and provision of sterile needles and condoms, and provision in criminal justice system. A wealth of evidence exists globally about efficacy of specific interventions that prevent transmission of HIV among people who inject drugs. WHO, UNODC and UNAIDS recommend that all countries that report large scale use/injection of opiates should provide a comprehensive package of nine HIV prevention, treatment, and care interventions for PWID(WHO, 2012).

The other components of the package are Needle & Syringe exchange programs, HIV Testing and counseling, Anti-Retroviral therapy, Prevention and treatment of sexually transmitted diseases, Condom provision to patients and families, targeted information and education to IDUs, Diagnosis, vaccination and treatment of hepatitis B and Tuberculosis. To successfully address the treatment issue of HIV a comprehensive approach is required. Empirical evidence exists to demonstrate little impact of single interventions (Degenhardt et al., 2010).

Most patients with serious, progressive illness confront a range of psychological challenges, including the prospect of real and anticipated losses, worsening quality of life, the fear of physical decline and death, and coping with uncertainty. HIV infection and/or AIDS brings additional challenges duet other apidly changing treatment developments and outlook. In addition, this disease is unusual in the extent of stigma associated with it and the fact that HIV is both infectious and potentially fatal. Because of the risk of transmission, major and permanent changes are called for in sexual behavior and/or management of substance use, neither of which may be easily modifiable (Remien & Rabkin, 2001). Extensive research has been carried out within the field of mental health on the effectiveness of different types of psychological interventions. There is a significant amount of evidence around the effectiveness of cognitive behavioral interventions, mixed evidence for counselling, and lots of evidence for using motivational interviewing techniques in the substance misuse field (NAT, 2010).

METHOD

Sample: This study was conducted in the Institute of Psychiatry, Benazir Bhutto Hospital Rawalpindi. This is a 50 bedded Tertiary Care Facility, where was for the integration of psychiatry in the primary health care has been carried out and the site where mental health gap

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

program has been launched and delivered in the 16 pilot districts of Pakistan. Sample was solely selected from injecting drug users which was filter at the drug detoxification and rehabilitation unit at the institute. A total of 121 IV drug users were identified and recruited from around the locality of Benazir Bhutto Hospital latterly, 31 HIV positive patients were selected. Following inclusion and exclusion criteria were used.

Inclusion criteria: a) Age more than 18 years b) Capable of giving Informed consent c) Drug users meeting ICD-10 [International Classification of Diseases-10] diagnosis for opioid dependence (as per self-report) at the time of interview with history of injecting drug use (ever use) and current users(last one month d) History of opioid dependence for a period of 5 years or longer. e) Client who can come for medicines every day) Persons willing to participate voluntarily and provide informed consent.

Exclusion criteria: a) Patients with serious medical conditions like acute respiratory failure, acute hepatic disease, delirium tremens and current dependence on alcohol b) Female patients who are pregnant or breast-feeding d) Presence of major psychiatric illness or physical illness due to which patient is unable to cooperate for interview e) Clients living in faraway areas unable to come every day.

Instrument/Measure

1. ADDICTION SEVERITY INDEX- ASI

The Addiction Severity Index is a relatively brief, semi-structured interview designed to provide important information about aspects of a patient's life which may contribute to his/her substance abuse syndrome. It includes the following domains: Medical, Employment/Support, Alcohol, Drug, Legal, Family/Social, and Psychiatric. These domains will be used by the patient to answer subjective questions in each problem area and will be presented for reference at this point in the interview. It's a 5 point (0-4) scale for patients to rate the severity of their problems and the extent to which they feel treatment for them is important. 0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 – Extremely. For the purpose of this interview, severity will be defined as need for treatment where there currently is none; or for an additional form or type of treatment where the patient is currently receiving some form of treatment. These ratings should be based upon reports of amount, duration, and intensity of symptoms within a problem area. The following is a general guideline for the ratings: 0-1 No real problem, treatment not indicated 2-3 Slight problem, treatment probably not necessary 4-5 Moderate problem, some treatment indicated 6-7 Considerable problem, treatment necessary 8-9 Extreme problem, treatment absolutely necessary. It is important to note that these ratings are not intended as estimates of the patient's potential benefit from treatment, but rather the extent to which some form of effective intervention is needed, regardless of whether that treatment is available or even in existence.

Addiction Severity Index (ASI) was applied at each individual for 4 times with 3 months interval. It describes the severity of the addiction problem on 7 domains including medical, alcohol, drugs, employment, legal, family and psychological.

2. WORLD HEALTH ORGANIZATION-QUALITY OF LIFE (WHOQOL-HIV BREF)

According to the World Health Organization (WHO), the quality of life (QOL) of an individual is essentially defined as the subjective evaluation by such individuals of their own personal life embedded within the context of their culture and values (Hsiung et al., 2011). The WHOQOL-HIV BREF produces six domain scores. Whereas the WHOQOL-100 has four items to present each facet, the WHOQOL-HIV BREF has only one item. Included in these, there are two items that examine General quality of life: question 1 asks about an individual's overall perception of quality of life and question 2 asks about an individual's overall perception of his or her health. Hence there are 31 items, representing the 30 facets. Five of these facets are specific to HIV/AIDS. It is rated on a 5 point Likert scale where 1 indicates low, negative perceptions and 5 indicates high, positive perceptions. Domain scores are calculated as per the guidelines given in the WHOQOL-HIV-BREF manual (WHO, 2002).

Procedure: It was both mixed method approach, Comparative study for quantitative analysis, cognitive studies and subjective assessment by the mental health professional and focus group discussion (qualitative data). Clients were identified and screened according to inclusion and exclusion criteria in out-patient department in main OPD, using a semi structured interview and Assist Scale. Eligible clients selected for the study were sent to the Drug Detoxification and Rehabilitation Centre earmarked for medical and psychiatric management. Then they were registered on the front desk and sent to the psychologist room. Each patient was assessed in a structured way using an input proforma and using Addiction Severity Index scale. Each patient was also assessed for motivation and booked for further evaluation for quality of life questionnaire. If all inclusion criteria were satisfied and the client gave his informed consent he was inducted in the study. From the psychologist room he was sent to the medical Doctor who would screen him according to a structured proforma especially developed for screening out any medical problems. If any co morbid illnesses were screened appropriate referrals were made. He was also referred to the laboratory for HIV testing. Recruited patients were then incorporated in to the rehabilitation program, we have structured a proper session room where the rehabilitation sessions take place. This program includes counselling, motivational interviewing, physical exercise, breathing exercise and progressive muscle relaxation exercises.

RESULT

Quantitative Analysis

Data was then analyzed using a software SPSS-14.0. Appropriate statistical tests were applied to find out the significance of the findings. Analysis of variance was also used to test the difference between the results at different point of time.

Data analysis based on age range indicates that most of the participants of the study were from the age range of 26-35 years (37%) there was also high level of addiction present in adulthood which is 46-65 years (23%). Our data analysis supports this argument that drug taking behavior

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

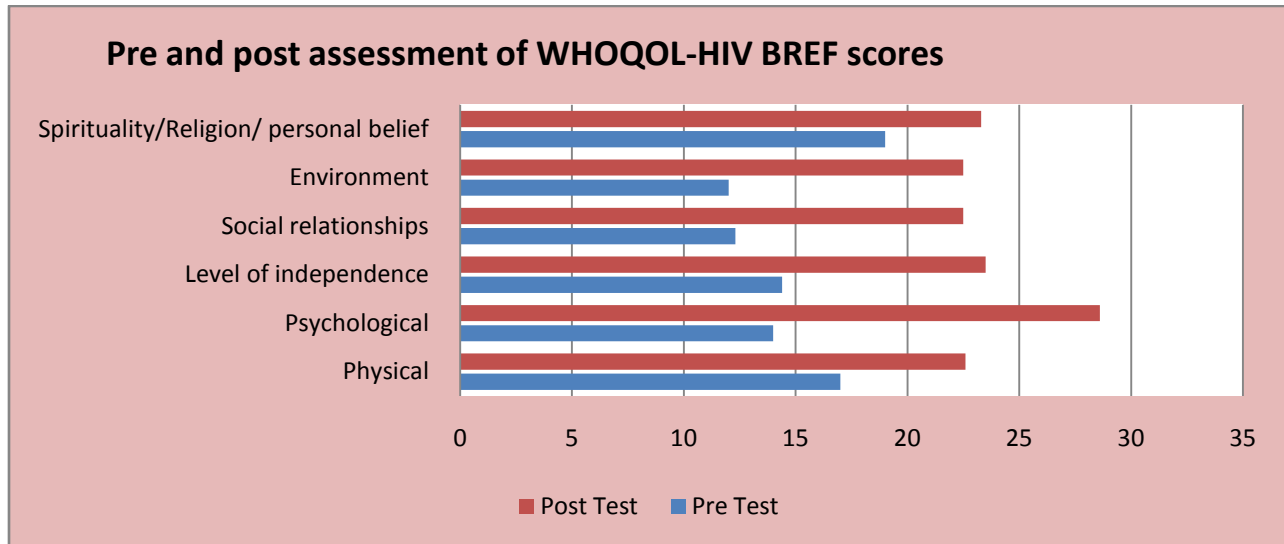
is more common in late adolescence to adulthood. Since these are chronic dependent users who have had long history of drug taking behavior and numerous treatments and relapses many patients come into the category of 46-65. Based on the demographic data, it revealed that most of the participants were male (99%) female ratio was very low (1%). Percentage of unmarried people is high (48%) as compared to married people (35%) hence there is low ratio of participants who are either divorced/separated or widow/er. There was low percentage (18%) of participants who get high education rest of the participants were under metric (range 25-30%). Descriptive data also revealed that high frequency of the participants was unemployed (52%) but there was high ratio of the people who are skilled (68%).

Table 1: t-Test, Mean scores for overall quality of life and general health perceptions for six domains of WHOQOL-HIV BREF (N= 30).

Facets	Mean(\pm SD) Pre-Test	Mean(\pm SD) Post-Test	t	p
Physical Domain	17.0 (10.0)	22.6 (15.0)	-16.6	.000
Psychological Domain	14.0 (12.0)	28.6 (18.0)	-11.8	.000
Level of independence Domain	14.4 (11.4)	23.5 (14.0)	-12.4	.000
Social relationships Domain	12.3 (13.0)	22.5 (15.0)	-9.5	.000
Environment Domain	12.0 (13.0)	22.5 (14.6)	-9.2	.000
Spirituality/Religion/ personal belief Domain	19.0 (9.3)	23.3 (13.9)	-19.8	.000

Table 1 explains the results of six different domains of WHOQOL-HIV BREF. In physical domain at the pretest level mean score was 17 while at posttest level, mean score was 22.6. In psychological domain the mean score were 14.0 while at the post test level the mean score were 28.6. In the third domain i.e. level of independence mean score were 14.4 at the pretest level and at the post test level mean score were 23.5. In the social relationship domain at the pretest level mean score were 12.3 and at the post test level mean score were 22.5. In the environment domain mean score were 12.0 at the pretest level and 22.5 mean score were at the post test level. In the last domain spirituality/religion/ personal belief domain at the pretest level score were 19.0 and at the post test level the score were 23.3. Increase in mean score indicates better quality of life and it is evident from the results that the quality of life of the participants has improved during the period of pre and post testing

Figure 1: Pre and post assessment of WHOQOL-HIV BREF scores



In the above figure mean scores of the 6 domains of WHOQOL-HIV BREF are showed at the pretest and posttest level. The above chart explains how quality of life of individuals has changed during the pretest and posttest level. Deviation in the post test level shows better quality of life in the participants.

Table 2: Cronbach’s Alpha reliability of WHO-QOL-BREF (N= 30)

Scale		α^*	No. of Domains
WHOQOL-HIV BREF	Baseline (Pre Test)	.99	6
	6 Month	.99	6
	9 Month	.99	6
	12 Month (Post Test)	.99	6

Note. *Cronbach’s Alpha (Cronbach's alpha simply provides you with an overall reliability coefficient for a set of variables (e.g., questions).

Reliability analysis was done to check the appropriateness of the scale (i.e. WHO QOL-HIV BREF) for use with the targeted population. Data analysis explains that the cornbach’s alpha is lies in the category of “excellent range (High-Stakes testing)” for this particular scale.

Qualitative Analysis

1.1 Focus Group on Psychosocial Intervention

Focus group discussion method utilized to get the qualitative data. The target group for discussion was consisted of HIV +ve male clients on OST (N=12). The main themes of discussions were related to awareness about HIV/AIDS, connection between HIV/AIDS and drug abuse, change in life after diagnoses of HIV/AIDS, including stigma and role of psycho-social rehabilitation.

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

It was noted that almost all of the participants were well aware of HIV/AIDS and the risks behavior associated to it. Some of them got to know about it through media and NGOs while others got to know about it when they started drug treatment and got screened for Hep-C, B & HIV.

The general consensus was that there was a link between drug use, risky sexual behavior and HIV/AIDS. There was a high tendency for persons to share needles and engage in risky sexual behavior when under the influence of drugs since drug use altered one's ability to think. It was also noted that people got into injecting drug abuse initially on experimental basis or easy availability of syringes on the drugs hotspots and due to the peer pressure.

It was further noted that families of HIV+ve patients have showed different reactions when came to know about their loved ones' positive status. Some families became cooperative, some stigmatized and thrown them out of home and some were in denial that such epidemic could happen to their loved one.

It was also stated that HIV/AIDS has brought change in personalities of infected persons. Some became more careful about themselves and others, while some became careless towards life.

The treatment adherence and great satisfaction with the psycho-social rehabilitation was also noted among the participants as they don't have to take any illicit drug after taking OST daily dose. They remain active and free from opioid's withdrawals and craving.

As far as the treatment of HIV/AIDS concerned, it was noted that most of the clients with positive status have not started ART because some have low CD 4 count, some have poor financial status and lack of awareness related to HIV/AIDS treatment.

1.2 Quality of Life

The patient satisfaction & dissatisfaction reported on experience and reflecting QOL scores indicated that satisfaction can be defined as the extent of an individual's experience compared with his or her expectations. Patients' satisfaction is related to the extent to which general health care needs and condition-specific needs are met. Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment, take an active role in their own care, continue using medical care services, and stay with a particular health provider.

When Quality of Life questionnaire was administered at the baseline, a majority of clients reported to be highly dissatisfied with their lives. They were unemployed and social and occupational functioning was markedly impaired due to drug abuse. Their personal relationships, household and broader social functioning was also significantly impaired and in most cases the clients did not enjoy the support of their families. This was reflected by the QOL scores which indicated that their quality of life in all domains i.e. psychological, physical, spiritual,

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

environment, level of independence and social relationships was poor. As reported by themselves as well as their families, mostly the clients spent their time in drug use and did not engage in productive or goal oriented activities.

When QOL was administered at different phases, significant improvements were seen in terms of QOL scores. When the questionnaire was administered at 12 months, majority of clients were found to have an improved quality of life. There were significant improvements in all domains especially psychological, social relationships and psychological. One aspect that was clearly identified was an improvement in occupational functioning as most of the clients were jobless at the time of induction but at 12 months were doing different jobs and earning for their families. This helped them to improve their personal relationships with their families and their self-confidence improved which was negligible at the beginning of the study. In keeping with the current evidence base which indicates that improvement in quality of life leads to improved compliance.

DISCUSSION

This study had a pre and post intervention design with assessments made at baseline and at three, six, nine and twelve months. A total of 210 subjects were recruited in the study, however those that were inducted in the study were 121. The study was conducted from January to December, 2013. The assessments were conducted using standard instruments and semi structured interviews. Interventions included medical treatment, motivational work, focus groups discussions, counselling and family work. WHO Quality of Life questionnaire was also applied. Laboratory investigations and referrals for management of respective problems was also an integral part of the study.

There is strong evidence that there is higher prevalence of mental health problems amongst people living with HIV compared with the general population. People with a mental health problem are at greater risk of HIV infection, and people who have been diagnosed with HIV are more likely to develop a mental health problem, for example anxiety or depression.

Psychiatric management of HIV-infected individuals

Specific techniques that establish the psychiatric management of patients with HIV/AIDS include the following 1) establishing and maintaining a therapeutic alliance 2) collaboration and coordination of care with other mental health and medical providers 3) diagnosing and treating all associated psychiatric disorders 4) facilitating adherence to the overall treatment plan 5) providing education about psychological, psychiatric, and neuropsychiatric disorders 6) providing risk reduction strategies to further minimize the spread of HIV; maximizing psychological and social/ adaptive functioning 7) considering the role of religion/spirituality 8) preparing the patient for issues of disability, death, and dying 9)and advising family regarding sources of care and support. The development of a psychiatric treatment plan for patients with

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

HIV infection requires thoughtful and comprehensive consideration of the biopsychosocial context of the illness (Science, 1996).

CONCLUSION

When seeing a patient in consultation, it is important to gather history about cognitive or motor symptoms and conduct a mental status screening examination to determine whether neurocognitive deficits are present. Psychiatrists should be knowledgeable about medication side effects and drug interactions of psychotropic agents as well as HIV-related medications in order to provide optimum patient care. Psychiatric treatment of patients with HIV infection should include active monitoring of substance abuse, since it is often associated with risk behaviors that can lead to further transmission of HIV. Adherence is of utmost concern with antiretroviral treatment because the regimens are so unforgiving; even minor deviations from the prescribed regimen can result in viral resistance and permanent loss of efficacy for existing medications. Psychiatrists can play an important role in the promotion of patient adherence, since comorbid psychiatric disorders (e.g., substance abuse or depression) have been shown to adversely affect patient compliance with a complicated treatment regimen.

ACKNOWLEDGEMENTS

We acknowledge UNAIDS, UNODC and WHO as part of a comprehensive package of nine core interventions for IDU programs that collectively maximize impact for HIV prevention and treatment.

DECLARATION OF INTEREST & FUNDING

The author declares no potential conflicts of interest with respect to the authorship and/or publication of this article and there is no funding involved in this research project by any organization.

REFERENCES

- Bulletin of the World Health Organization. (2011). 89 (10), 701-701. doi:10.2471/BLT.11.001011
- Degenhardt, L., Mathers, B., & Guarinieri, M., et al. (2010). Meth/amphetamine use and associated HIV: implications for global policy and public health. *International Journal of Drug Policy*, 21, 347-358.
- Degenhardt, L., & Hall, W. (2012). Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *The Lancet*, 379(9810), 55-70.
- Hsiung, P. C. I., Fang, C. T., Wu, C. H., Sheng, W. H., Chen, S. C., Wang, J. D., Yao, G. (2011). Validation of the WHOQOL-HIV BREF among HIV-infected patients in Taiwan. *AIDS Care*, 23(8), 1035-42. doi: 10.1080/09540121.2010.543881.
- Kumar, M. S. (2002). HIV Prevention Strategies for Injection Drug Users in High HIV-Prevalent Scenarios. Global Research Network on HIV Prevention in Drug-Using Populations. Fourth

Psycho-Social Rehabilitation Outcomes among HIV-AIDS Patients during One Year Study

- Annual Meeting. National Institute of Health. United States Department of Health and Human Services.
- National AIDS Control Program, Ministry of Health, Government of Pakistan. HIV/AIDS Surveillance Project 2004-2008. http://www.nacp.gov.pk/programme_partners/cida/
- National AIDS Trust (NAT). July 2010. Psychological support services for people living with HIV.
- Robert, H. R., & Judith G. R. (2001). Psychological aspects of living with HIV disease. A primary care perspective. *West J Med*, 175,332-335.
- UNAIDS report on the global AIDS epidemic. (2013). GLOBAL REPORT. Retrieved from http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Global_Report_2013_en_1.pdf
- United Nation Organization on Drugs and Crime report. Drug use in Pakistan, 2013. Retrieved from https://www.unodc.org/documents/pakistan/Survey_Report_Final_2013.pdf
- WHO, UNODC, UNAIDS. (2012). Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users.
- World Health Organization (2002). Department of Mental Health and Substance Dependence World Health Organization. Geneva: Switzerland. Retrieved from http://www.who.int/mental_health/media/en/613.pdf