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Research Article

Knowledge Regarding HIV & AIDS among Opioid Substitution Client of Banke, Nepal

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Abstract

The issue of HIV and AIDS in substance and drug users is of significant concern, necessitating interventions to improve knowledge about the disease among individuals undergoing opioid substitution therapy. This study aimed to assess the existing knowledge of HIV and AIDS among opioid substitution therapy clients in the Banke District of Nepal. A descriptive, cross-sectional study was conducted among 50 respondents selected using non-probability purposive sampling techniques from the Methadone Maintenance Treatment Program at Bheri Zonal Hospital in Nepal. Data was collected using a semi-structured interview schedule and analyzed using both descriptive and inferential statistics. The findings indicated that 58.0% of respondents recognized HIV and AIDS as a communicable disease, and all respondents identified unsafe sexual contact and intravenous drug use as the primary modes of transmission. Additionally, 96.0% of respondents identified multiple sex partners as a high-risk group, and 100% and 98.0% of respondents recognized that avoiding sharing needles and using condoms during sex, respectively, could prevent transmission. The study also found that the primary source of information for respondents was peer groups. The findings indicate that respondents had a moderate level of knowledge about HIV and AIDS and its treatment. The study also revealed that there were misconceptions and insufficient knowledge regarding HIV and AIDS transmission, prevention, and treatment among intravenous drug users.

Keywords: hiv aids; knowledge; opioid substitution client; nepal

Introduction

Background

Acquired immunodeficiency syndrome (AIDS) is the most severe manifestation of a range of illnesses related to human immunodeficiency virus (HIV) infection. HIV transmission occurs through exposure to bodily fluids via high-risk behaviors, such as heterosexual intercourse with an HIV-infected partner, injection drug use, and male homosexual relations. Additionally, individuals who received blood or blood products contaminated with HIV, infants born to mothers with HIV infection who were breast-fed, and health care workers exposed to needle-stick injury from an infected patient are at risk [1].

The World Health Organization (WHO) designates Acquired Immunodeficiency Syndrome (AIDS) as the ultimate stage of Human Immunodeficiency Virus (HIV) infection. HIV is a retrovirus that infects cells of the immune system, compromising their functionality and rendering the individual more susceptible to infections. Despite efforts to combat the spread of HIV, the AIDS epidemic continues to expand, with global estimates indicating that over 40 million people are infected [2].

HIV remains a significant public health concern worldwide, having resulted in the deaths of more than 35 million individuals to date. In 2015, there were approximately 1.1 million deaths (940,000–1.3 million) attributed to HIV-related causes globally. The number of people living with HIV at the end of 2015 was approximately 36.7 million (34.0–39.8 million), with 2.1 million (1.8–2.4 million) newly infected individuals reported globally in the same year. Presently, only an estimated 54% of individuals with HIV are aware of their status. In 2014, around 150 million children and adults across 129 low- and middle-income countries received HIV testing services [3].

The Human Immunodeficiency Virus (HIV) epidemic in Nepal exhibits significant heterogeneity with respect to the most-at-risk populations (MARPs), geographic distribution, and risk factors in different

geographic regions. The epidemic is concentrated among key populations such as female sex workers (FSWs), people living with injecting drug (PWID), men who have sex with men (MSM), and some migrants. Effective prevention interventions need to be scaled up among MARPs and their direct sexual partners. However, Nepal's poverty, political instability, gender inequality, low levels of education and illiteracy, and the stigma and discrimination surrounding HIV and AIDS make the task challenging. The first case of AIDS in Nepal was reported in 1988, and as of December 15, 2011, 19,118 cases of HIV infection were officially reported. However, due to limitations in Nepal's public health surveillance system, the actual number of infections is thought to be higher, with an estimated 50,200 people living with HIV as of 2011, and approximately 60% of those infected are unaware of their sero-status [5].

Furthermore, despite the adult population estimated HIV and AIDS infection rate being below the 1% threshold that is considered "generalized and severe," the prevalence rate marks a concentrated epidemic among at-risk populations such as FSWs, IDUs, MSM, and migrants. The National Center for AIDS and STD Control (NCASC) estimates the number of HIV cases in Nepal to be closer to 70,000 in 2012, with 6.8% being PWID. Injection drug use appears to be extensive in Nepal and overlaps with commercial sex. Moreover, the high number of sex workers who migrate or are trafficked to Mumbai, India, to work increases HIV prevalence in the sex workers' network in Nepal more rapidly. Key populations (IDUs, MSM, FSWs, male labor migrants, and clients of FSWs) account for about 58% of HIV infections among adults [6].

Rational

As of 2014, approximately 36.9 million individuals were living with Human Immunodeficiency Virus (HIV), which caused 1.2 million deaths. The majority of those infected reside in sub-Saharan Africa. Since its discovery, HIV/AIDS has been responsible for an estimated 39 million deaths worldwide, and is considered a pandemic due to its prevalence across a large geographic area and active transmission [7].

According to UNAIDS, the global estimated range of People Who Inject Drugs (PWID) is between 11,008,500-21,222,000, with a midpoint prevalence of 0.37%, and the estimated range of PWID who are HIV infected is between 764,000-6,589,000, with a midpoint prevalence of 18.9%. In South Asia, the estimated range of PWID is between 434,000-726,500, with a midpoint prevalence of 0.06%, and the estimated range of PWID who are HIV infected is between 34,500-135,500, with a midpoint prevalence of 13.08% [8].

HIV & AIDS is one of the most prevalent issues in Substances & Drug users. In Nepal HIV prevalence shot up among injecting drug users from 2.2% in 1995 to nearly 50% by 1998. HIV prevalence among injecting drug users in Indonesia reached 15 percent in 1999/2000 and within the following year, 40% of injectors in treatment centers in Jakarta were found to be HIV positive. In 2001, seven Chinese provinces showed70 per cent HIV prevalence among injecting drug users in a number of areas [9].

National HIV and AIDS Action Plan 2008-2011 a total of 12,387 HIV cases had been reported in Nepal; the majority of which come from the 30-39 age group. Among HIV positive people, the male to female sex ratio is 2.1:1. All modes of transmission have been reported in Nepal; however, sexual transmission and sharing of unclean needles remain the most common [10].

Prevalence of HIV in Different Sub Populations- Intravenous Drug Users 23.02%, Female Sex Workers 1.45%, Men Having Sex with Men 1.71%, Migrant Workers 1.90%, General Adult Population 0.49% [11].

Looking specifically at the situation in Kathmandu Valley, it is now estimated that more than 50% of IDUs there are HIV-positive (HMG Nepal 2000). As there remain large groups of uninfected IDUs (and a constant stream of uninfected youth beginning to inject each year), and as the virus is spreading so quickly among IDUs, prevention efforts need to concentrate on effective approaches to preventing transmission among drug users. [12].

Objectives of the Research

- To assess the existing knowledgeabout transmission & prevention of HIV & AIDS among PWID.
- To explore the different mode of HIV & AIDS transmission.
- To assess risk behavior regarding HIV & AIDS.
- To distinguish the different preventive measures of HIV & AIDS.
- To assess knowledge regarding HIV & AIDS treatment.

Significance of the Study

Be beneficial to the researcher to gain in depth understanding on knowledge regarding HIV & AIDS among PWID.This study might be helpful to be aware of HIV transmission problem & implement prevention programme to reduce the incidence of HIV & AIDS among the drug users. The findings of this study might be beneficial as a foundation for future study.

Methods

Research Design

A descriptive cross sectional study design was used to gather information on knowledge regarding HIV & AIDS among drug users.

Research Setting and Population

This research was conducted at OST, setting as OPD, delivering Methadone Maintenance Treatment at BHZ at Banke, a tertiary level hospital in Midwestern region of Nepal.

Population was included client attending OST department.

Sampling Technique & Sample size

Non Probability Purposive Sampling technique was used.

Sample size was 50.

Research Instrumentation

The research instrument consists of semi structured interview by the researcher herself. The research instrument was designed in both English & Nepali version.

The Questionnaires consist of two parts-

Part I: Questions related to Socio-demographic variables.

Part II: Questions related to Knowledge regarding HIV & AIDS.

Validity and Reliability of Research Instrument

Content validity was established by extensive literature review, consulting with research advisors, statistician, subject matter experts and valuable suggestions from colleagues.

Reliability was added by pre-testing.

Ethical Consideration

Prior to data collection, formal administrative approval was obtained from research committee of Bheri Zonal Hospital,Nepal.

Informed written consent was taken from each respondent after explaining objectives of the study.

The participation in the study was voluntarily, they have the right to ask questions and that they could withdraw from the study at any time without having to give a reason.

The collected data was kept confidential and used only for research purpose.

Data Collection Procedure

Permission letter was obtained from Bheri Zonal Hospital (BHZ) & Change Team (CT) before conducting research.

Purpose of the study was explained to respondents before collection of the data.

Informed written consent was obtained from the respondents prior to data collection.

The data was collected from face to face interview schedule technique.

The average time required to complete interview was about 15-20 minutes.

Confidentiality of the respondents was maintained by using code number & information collected was used only for study purpose.

Data analysis procedure

Collected forms werechecked, edited, coded, and analyzed for its completeness and accuracy. Data was stored safely. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20. Analyzed data was interpreted by using descriptive and inferential statistical method. Findings of the study were presented in tabular form.

Results

Part I: Demographic Information of the Respondents

Variables	Frequency	Percentage
Age Interval		
21-30	20	40.0
31-40	20	40.0
41-50	6	12.0
51-60	4	8.0
Mean Age ± S.D = 34.760 ± 9.3297		

Table 1: *Socio Demographic Characteristics of respondents* **n=50**

Table 1 shows that nearly half of the respondents (40%) were from age group 21-30 years & 31-40 years, followed by 41-50 years (12%) & 51-60 years (8%).

Variables	Frequency	Percentage
Gender		
Male	49	98.0
Female	1	2.0
Ethinicity		
Janjati	29	58.0
Chhetri	11	22.0
Brahmin	4	8.0
Thakuri	4	8.0
Dalit	2	4.0
Religion		
Hindu	35	70.0
Muslim	14	28.0
Buddhist	1	2.0
Marital Status		
Married	35	70.0
Unmarried	13	26.0
Separated	2	4.0
Education		
Literate	43	86.0
Primary	*13*	*26.0*
Secondary	*13*	*26.0*
Informal	*9*	*18.0*
Bachelor	*5*	*10.0*
Higher Secondary	*3*	*6.0*
Illitrate	7	14.0
Family Type		
Joint	37	74.0
Nuclear	8	16.0
Single	5	10.0
Occupation		
Job Holder	14	28.0

Business	11		22.0	
Labor		10		20.0
Unemployed		8		16.0
Agriculture		6		12.0
Student	1		2.0	
Non-Injectable				
Yes		50		100.0
Injectable				
Yes		32		64.0
No		18		36.0

Table 2: *Gender, Caste, Religion and Ethnicity of Respondents* **n=50**

Table 2 shows most of the respondents were Janjati 29% followed by Chhetri 22%, Brahmin 8%, Thakuri 8% & Dalit 4%. Most of the respondents were Hindu 70% followed by Muslim 28% & Buddhist 2%. Most of the respondents are married 70% followed by unmarried 26%& separated 4%.

Majority(86%) of respondents are literate were primary 26%, secondary 26% followed by informal 18%, bachelor 10% & higher secondary 6%. It seems that most of the respondent 74% were from joint family followed by 16% Nuclear & 10% Single. Among all respondents28%had maintained their income source through job, followed by business 22%, labor 20%, Agriculture 12% where as 16% are unemployed & 2% are Students. 100% respondentswere using non injectable drug where 64% respondents were also using injectable drug.

Part II: Knowledge Related HIV & AIDS

Variables	**Frequency**		**Percentage**	
Disease				
Communicable	29		58.0	
Non- Curable		10		20.0
Fatal		8		16.0
Don't Know		3		6.0
Programme on HIV				
Yes		28		56.0
Less than 1 day	*17*		*34.0*	
1 to 2 day	*7*		*14.0*	
More than 2 days	*4*		*8.0*	
Heath Institution	*24*		*48.0*	
Rehab Center		*4*		*8.0*
No		22		44.0
Harm Reduction Programme				
Yes		3		6.0
Health Person		3		6.0
No		47		
Symptoms *				
Fever		30		62.5
Weight loss more than 10%	29		60.4	
Common cold more than 1 month	21		43.8	
Uncurable wound	20		41.7	
Depression		7		14.6
Diarrhea	3		6.2	
Don't know		13		27.1
Common Disease*				
Hepatitis	17		34.0	
Tuberculosis		15		30.0
Typhoid	4		8.0	
Skin Problem		2		4.0
Prolonged Diarrhea	1		2.0	
Don't Know		15		30.0

Multiple Response *

Table 3: *Knowledge on HIV & AIDS, Programme, Symptoms &Common disease* **n =50**

Table 3 shows that out of total respondents 58% respondent represent that HIV is communicable disease, followed 20% as a non- curable disease, 16% as a fatal disease while 6% reported they don't know about HIV. Among all respondents 56% were involve in HIV programme at different

session & at different place where as 44% were not involve in any programme related to HIV. It also shows that majority 94% didn't know about harm reduction programme while only 6% were known about harm reduction programme. 62.5% respondent said fever is common symptoms followed by 60.4% weight loss , 43.8% common cold, 41.7% uncurable wound, 14.6% depression, & 6.2% diarrhea. Similarly, 34% of respondents believed hepatitis as a common disease in HIV infected person.

Variables	Frequency	Percentage
Transmission*		
Unsafe sexual contact	50	100.0
Intravenous drug use	50	100.0
Unsafe blood transfusion	47	94.4
HIV infected mother to child	30	60.0
Breast feeding by infected mother	15	30.0
Don't know	1	2.0
High Risk Behavior *		
Multiple Sex Partner	48	96.0
PWID	48	96.0
Migrant worker	45	90.0
Female Sex worker	35	70.0
Men Sex with Men	23	46.0
Health worker	21	42.0

Multiple Response *

Table 4: *Knowledge on Modes of HIV Transmission* **n=50**

Table 4 shows majority of respondent told that major way of HIV & AIDS transmission is unsafe sexual contact 100%, same as intravenous drug use 100%, followed by unsafe blood transfusion 94.4%, mother to child 60.0% & breastfeeding 30.0% while 2.0% don't know about transmission. While 96.0% respondents believed high risk behavior of HIV transmission is person with multiple sex partner & people living with using intravenous drugs.

Variables	Frequency	Percentage
Activities don't transmit HIV*		
Hand Shaking	50	100
Hugging	45	97.8
Sharing food from same plate	41	89.1
Contact with sweat & urine	38	82.6
Kissing	37	80.4
Swimming in same pool	4	8.7
Using same comb & towel	3	6.5
Window period		
Don't know	40	80.0
3 month	6	12.0
3 to 6 month	2	4.0
6 month	2	4.0

Multiple Response *

Table 5: *Knowledge on Modes of HIV Transmission* **n=50**

Table 5 shows, 100% respondents told hand shaking with infected person doesn't transmit HIV. Among all respondents, 80% didn't know about window period of HIV.

Variables	Frequency	Percentage
Preventive methods of HIV & AIDS*		
Avoiding sharing needles & syringe	50	100
Use of condom	50	100
Single sex partner	48	96.0
Carefully check the blood before transfusion	44	88.0
Preventive measure for PWID		
Avoiding sharing needles & syringe	50	100.0
Sharing Needles & Syringe		
Yes	14	28.0
Sometime	7	14.0
Don't remember	7	14.0

Less than 10	7	14.0	
More than 10	7	14.0	
No	36	72.0	
Method used to prevent HIV & AIDS			
Condom	50	100.0	
Use of condom Always	27	54.0	
Never	15	30.0	
Seldom	7	14.0	
Never done sex	1	2.0	

Table 6 : *Knowledge on Prevention of HIV & AIDS* **n=50**

Table 6 shows 100% respondents believed use of condom helps to prevent HIV & AIDS transmission. Similarly, 54.0% always used condom with his/her sexual partner, 30.0% never used condom while 14% seldom used condom during sexual contact.

Variables	Frequency	Percentage
Cure for HIV		
No	42	84.0
Yes	6	12.0
Don't know	2	4.0
Place for Test*		
Government Hospital	46	92.0
Private	37	74.0
Family planning center	35	70.0
Rehab	23	46.0
INF	4	8.0
Don't know	4	8.0
Place for HIV Treatment		
Government Hospital	33	66.0
Any health institution	4	8.0
Private Hospital	2	4.0
INF	1	2.0
Don't Know	10	20.0

Multiple Response *

Table 7: *Knowledge on Treatment of HIV & AIDS.* **n=50**

Table 7 represents that majority 84% respondents knew that HIV & AIDS can't be cured. Majority (92.0%) & 66.0% respondents told that place for HIV test & treatment is governmental hospital respectively.

n=50

Variables	Frequency	Percentage
Medicine		
Yes	14	28.0
Heath Person	*11*	*22.0*
Heath Institution	*11*	*22.0*
Peer	*3*	*6.0*
Mass Media	*3*	*6.0*
No	36	72.0
Duration of treatment *		
Lifelong	25	51.0
Up to sign & symptoms disappears	3	6.1
1 yr.	3	6.1
5 yrs.	1	2.0
Don't know	19	38.8

Multiple Response *

Table 8: *Knowledge on Treatment of HIV & AIDS*

Table 8 represents out of 50 respondents, 28.0% knewabout ARV among them 22% knew through health person & health institution, 6.0% through peers & mass media. More than half (51.0%) of respondents knew about period for talking medicine of HIV & AIDS is lifelong.

n=50

Variables	Frequency	Percentage
Source of information *		
Peers	47	94.0
Mass Media	43	86.0
Programme about HIV	33	66.0
Health Personal	15	30.0
Rehab	7	14.0
Book	6	12.0
Multiple Response *		

Table 9: *Source of Information on HIV & AIDS*

Table 9 shows majority 94.0% respondents knew about HIV & AIDS through peers, followed by 86.0% through mass media, 66.0% through programme about HIV, 30.0% through health personal, 14.0% rehab & 12.0% book.

Discussion

Regarding the knowledge of HIV & AIDS, more than half 58.0% told that HIV & AIDS is communicable disease. Almost 56.0% of respondents had involved in educational programme on HIV & AIDS. Only 6.0% of respondents knew about harm reduction programme. In regarding to disease most common symptoms 62.5% of respondents answered fever, similarly about 34.0% of respondents believed hepatitis as a common disease that occur in people infected with HIV & AIDS. Different than present study, cross sectional survey by Baifeng et all (2016) stated that 93.4% had HIV & AIDS knowledge[13].

In present study 100% respondents told hand shaking with infected person doesn't transmit HIV followed by 97.8% by hugging, 89.1% sharing food from same plate, 82.6% through contact with sweat & urine of infected person, 80.0% through kissing. Similar study by Gaashet all 2003, most of the respondents believed that HIV& AIDS could also spread through handshake (82.22%), eating with the victim or sharing cups & utensils with him (64%), or use of fomites (52%). Only a few had the (4.67%) knowledge that sharing toothbrushes orblades of patients could transmit the infection to others; the majority (76.22%) was ignorant while a sizeable proportion (19.11%) did not comment at all [14].

In present study 96.0% respondents believed high risk behavior of HIV transmission is person with multiple sex partner & people living with using intravenous drug. Among all respondents (i.e.50), 80% didn't know about window period of HIV. Similar study by Gupta P et all 2013 high-risk groups, 29.4% girls and 32.7% boys opined that prostitutes were high-risk group for HIV/AIDS followed by adolescents and homosexuals (23.5% girls and 22.1% boys; 23.5% girls and 20.3% boys, respectively). Only less than 1.0% girls and 4.4% boys felt that truck drivers were high-risk group for HIV/AIDS[15].

In relation to HIV & AIDS prevention most of the respondent had knowledge about preventive way of HIV as avoiding sharing needles & syringe & use of condom was 100% & 98.0% respectively. Cent percent respondents knew the preventive way of HIV transmission on PWID. Among all respondents, 28.0% respondents told that they used to share needle & syringe. All respondents believed use of condom helps to prevent HIV & AIDS transmission. Similarly, 54.0% always used condom with his/her sexual partner, 30.0% never used condom while 14% seldom used condom during sexual contact. A snowball sample of 1127 eligible injection drug user by Chikovaniet., all (2011) shows that majority of IDUs had knowledge about how HIV is transmitted and how its transmission can be prevented. Most (99.4%) knew that sharing syringes increases the risk for contracting HIV; 97% reported that they could get new, unused syringes when needed; and 94.9% mentioned drug store as a prime source of syringes. Similar study conducted in 2006/7 with a convenience sample of 295 illicit drug users in Rio de Janeir by Bertoni.N et all (2011) almost 40% of drug users reported having never used condoms and more than 60% reported not using condoms under the influence of substances. Most drug users (80.6%) correctly answered that condoms make sex safer, but incorrect beliefs are still common (e.g. nearly 44% believed HIV can be transmitted through saliva and 55% reported that HIV infection can be transmitted by sharing toothbrushes), with significant differences between drug users who had and who had not been tested for HIV[16,17].

In present study regarding the test, cure & treatment majority 84% respondents knew that HIV & AIDS can't be cured. 92.0% & 66.0% respondents told that place for HIV test & treatment is governmental hospital. Similarly 28.0% respondents knew about ARV through health person (22.0%), health institution (22.0%), peer (6.0%) & mass media (6.0%). More than half (51.0%) of respondents knew about period for talking medicine of HIV & AIDS is lifelong. In similar study by Gupta P 2013, about treatment of HIV/AIDS, 36.3% girls and 43.4% boys said that it was a curable disease and 42.2% girls and 36.3% boys said that it was not curable. Similar percentage of girls and boys were not sure whether it was curable [15].

Conclusion

In current study majority of the respondent had knowledge about HIV & AIDS, major way of transmission & the preventive measures of HIV & AIDS. The overall findings of the study showed that most of the respondents had less knowledge & misconceptions regarding mother to child transmission & about breast feeding by infected mother. It may be due to low literacy rate of respondents, lack of effective educational programme& training.

Conflicts of Interest

The authors do not have conflicts of interest regarding this publication.

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