



Effectiveness of counseling in VCTC in Khammam district hospital

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Abstract:

Background: Acquired Immune Deficiency Syndrome (AIDS) is no longer an emerging disease. As it is behaviour related disease, bringing out a change in behaviour is most important component of prevention which can be implemented only through Health education and counseling. Counseling helps in educating the public about Human Immuno Deficiency Virus (HIV) / AIDS, this is of considerable importance because in India though we have literates, their understanding and misconceptions regarding HIV are not addressed in our educational system. **Aim:** To assess the effectiveness of counseling in ICTC. **Materials & Methods:** The study was done at ICTC in Government District hospital, Khammam. The study was carried out from 1st October to 31st December 2007; follow up period from 1st January to 31st March 2008. Study population: People who attended ICTC during the study period applying inclusion and exclusion criteria- 705. **Results:** Nearly two thirds of the study population were married. In this study a large number 30 (40.5%) of women were widowed. Of these 18 women said that their spouse died of AIDS. The knowledge regarding transmission by sexual route, blood transfusion, and sharing of needles and misconceptions has shown a change, which was statistically significant. Highest number of respondents belonged to class IV socio economic class. **Conclusion:** The counseling has been found to be quite effective in HIV positives with regard to revealing to spouse/sex partner, treatment and compliance with CD4 testing. Moderately effective with regarding to knowledge about prevention and transmission. Less effective regarding use of condom.

Key words: Counseling; HIV/AIDS; Khammam; VCTC

Introduction

“Prevention is better than cure” this holds good in case of HIV/AIDS because prevention is the best option available at present. As it is behaviour related disease, bringing out a change in behaviour is most important component of prevention which can be implemented only through Health education and counseling. Counseling helps in educating the public about HIV/ AIDS, this is of considerable importance because in India though we have literates, their understanding and misconceptions regarding HIV are not addressed in our educational system. Counseling is important in directing the client in matters like promoting safe sexual practices like being faithful to the life partner. For a high risk individual counseling empowers him with knowledge about HIV and the

ways of preventing contact with infection by suggesting risk reduction.

Our national programme on AIDS mainly revolves around counseling which is delivered through Integrated Counseling and Testing Centre (ICTC). Integrated counseling and testing is known to be cost effective strategy for prevention [1,2]. Though Government of India had established ICTC's in every corner of our country the effectiveness of counseling is yet to be proved. There are very few studies regarding this aspect. Hence this study is intended to look into the knowledge and behavioural change in clients visiting the integrated counseling and testing centre in the district hospital, Khammam.

Aim & Objectives

Aim: To assess the effectiveness of counseling in ICTC.

Objectives: To assess the effectiveness in terms of increase in knowledge and intended change in behaviour in test negatives. To assess the effectiveness of counseling in those found positive.

Materials and Methods

The study was done at ICTC in Government District hospital, Khammam. The study was carried out from 1st October to 31st December 2007; follow up period from 1st January to 31st March 2008. Study population: People who attended ICTC during the study period applying inclusion and exclusion criteria- 705. **Inclusion criteria:** All the study subjects who walked into ICTC between the age group of 15-65 years during the study period and who attended all the counseling sessions and collected the result. **Exclusion criteria:** Children below 15 years and people above 65 years. People's blood sample sent from the ward/ test done at bed side. Pregnant women who attended the PPTCT, deaf and dumb. People who attended only one or two counseling sessions and collected the result. **Collection of data:** The data was collected by a pre tested questionnaire. Verbal informed consent was obtained from the client/attende of ICTC before administering the questionnaire. The client was assured of his/her anonymity, secrecy and his/ her right to refusal to participate in the study. He/she were reassured that this study was for scientific purpose only and none of the information he/she divulged will be made public. Interview schedule was administered to illiterates and to the literates the questionnaire was given to be filled in. Only 688 people qualified for both inclusion and exclusion criteria were taken into consideration. The questionnaire was administered 3 times in total. First time before pre test counseling, second time after taking the test, third time after post test counseling. Ethical clearance had been taken from the Institutional Ethical Committee. Confidentiality was maintained at every stage. Follow up was done for 3 months from 1st January to 31st March 2008 to check if the clients have returned for pretest. Results were tabulated and analysed with Microsoft excel. Tests of significance were used wherever necessary.

Results and Discussion

The risk behavioural pattern of the study population was assessed and presented below

Table 1: Distribution of study population by Risk behaviour

Risk behavior	Male N=501	Female N=202	Total N=703
Yes	241 (48.1)	51 (25.2)	292 (41.5)
*Regular sex partner	20 (4.0)	33 (16.3)	53 (7.5)
Non regular sex partner	200 (39.9)	24 (11.9)	224 (31.9)
CSW	72 (14.4)	0 (0.0)	72 (10.2)
MSM	14 (2.8)	0 (0.0)	14 (2.0)
No response	4 (0.8)	4 (1.9)	8 (1.1)

Totals do not correspond as some respondents have given more than one answer.*sex partner other than spouse.

In our study 48.1% of males had risk behaviour, in that 72(14.4%) have visited commercial sex workers. According to the study by Singh et.al [3] 55% had risk behaviour and 16.5% had contact with commercial sex workers. According to the BSS 2006 the percentage who had sex with non regular sex partner in Andhra Pradesh was 21.0% for males and 9.1% for females in last 12 months [4]. In our study it was observed that 39.9% of total males and 11.9% of females had sex with non regular sex partner. According to Jewkes et.al 59.3% had non regular sex partners which was higher than our study which reported 39.9% of total population had non regular sex partners [5].

In our study only a total of 5.8% of the study population received blood transfusion. In that 9.9% of the female study subjects and 4.2% of males received blood transfusion. According to Rahbar et.al 4.0% of women attending ANC clinic received blood transfusion, which concurs with our present study [6]. Singh et.al reported that 7.6% of the clients attending VCTC had received blood transfusion sometime during their life. In our study none of the respondents were injecting drug users [3].

In our study 171 (24.9%) out of 688 tested positive for HIV in that 95 (55.56) were males and 74 (43.2) were females and 2(1.1) were transgender. The seropositivity rate for the study VCTC was 18% (2003), 31% (2004), 24% (2005), 18% (2006), and 20 % (2007). The seropositivity rate was varying from year to year and does not show either an upward trend or a declining trend. Similar variations were observed by Jayarama et al. Wanyenze et al reported that 25% of the study population were positive [7,8]. Out of 688 people who underwent the test only 559 (81.3%) attended post test counseling. Percentage of people who had post test counseling

varied in different studies. Hightoe et al and Bwambale et al reported in their studies 54.7%, and 96.0% respectively [9,10]. The effects of counseling was assessed for the 559 people who had attended all counseling sessions and were presented for negatives and positives separately.

Knowledge was assessed regarding routes of transmission, prevention, and window period. Intended behavioural change was enquired into and compliance for repeat testing was assessed after 3 months for test negatives (388).

Table 2: Knowledge regarding routes of transmission before and after counseling among test negatives (N=388)

Knowledge	Before counseling	After counseling	Change in percent	P value
Sexual route	307 (79.1)	383 (98.7)	+19.6	<0.05
Blood transfusion	157 (40.5)	261 (67.3)	+26.8	<0.001
Sharing of needles	186 (47.9)	269 (69.3)	+21.4	<0.001
Mother to child	13 (3.4)	23 (5.9)	+2.5	>0.05
Misconceptions	25 (6.4)	4 (1.0)	- 5.4	<0.001

Numbers in parenthesis indicate percentages. Totals do not correspond as some respondents have given more than one answer.

The knowledge regarding transmission by sexual route, blood transfusion, and sharing of needles and misconceptions has shown a change, which was statistically significant. There was some change in the knowledge regarding mother to child transmission, but it was not significant. Li et al reported that misconceptions were reduced significantly after intervention and statistically significant [11].

The ABC (abstinence, be faithful and condom use) methods of prevention has shown an increase which was significant. The knowledge about safe blood and disposable needles also has shown a significant difference but in absolute change in percent it was much more than ABC.

Table 3: Knowledge regarding prevention before and after counseling among test negatives (N=388)

Knowledge	Before counseling	After counseling	Change in percent	P value
Abstinence	60 (15.5)	110 (28.4)	+12.9	<0.001
Be faithful	165 (42.5)	217 (55.9)	+13.4	<0.001
Use of condom	168 (43.3)	225 (58.0)	+14.7	<0.001
Safe blood	117 (30.2)	227 (58.5)	+28.3	<0.001
Disposable needles	109 (28.1)	220 (56.7)	+28.6	<0.001

Numbers in parenthesis indicate percentages. Totals do not correspond as some respondents have given more than one answer.

Knowledge regarding window period after counseling sex wise among HIV negatives

Among the study subjects, 89 (22.9%) people who were HIV negative knew about window period. Paul et al reported that after the education session the significant increase in knowledge regarding window period increased from 6.7% to 62.0%. The post test counseling did not bring the anticipated change. A little more than three fifths of population (63.4%) have said that they intend to reveal the test result to their spouse/sex partner. Whereas only half of the study subjects intended to change their risk behavior. Among the test negatives who had risk exposure less than 6 months were asked to get a repeat test after 3 months. Majority of the study subjects (88.0%) in that 112 were males and 57 were females. 12(6.3%) people said that they were not willing to take repeat test. who were advised repeat test have shown intended willingness. But only 38 (22.5%) have undergone the repeat test.

In table 4, The predominant age group of HIV positives was 25-29 years of age (30.4%) followed by 35-39 years (25.1%) and 30-34 (21.1%). In the age group of 15-19 there were 2 positives among males. Considering the age sex distribution 35-39 years was more among males and 25-29 years was more among females, which was in concurrence with relatively young age in women. Joardar et al reported that 85.5% of males belonged to the age group of 20-39 years and 76.5% of females belonged to that group [12].

Table 4: Age & sex distribution of HIV positives

Age group	Males N=95	Females N=74	Total (N=171)
15-19	2 (2.1)	0 (0.0)	2 (1.2)
20-24	8(8.9)	14 (18.9)	22 (12.9)
25-29	22 (23.2)	28 (37.8)	52 (30.4)
30-34	18 (18.9)	18 (24.3)	36 (21.1)
35-39	35 (36.9)	8 (10.9)	43 (25.1)
40-44	6 (6.3)	2 (2.7)	8 (4.6)
45-49	0 (0.0)	2 (2.7)	2 (1.2)
50-54	2 (2.1)	0	2 (1.2)
55 &above	2 (2.1)	2 (2.7)	4 (2.3)

Numbers in parenthesis indicate percentages

Table 5: Distribution of HIV positives by marital status

Marital status	Males N=95	Females N=74	Total N=169
Never married	4 (4.2)	2 (2.7)	6 (3.6)
Married	81 (85.3)	32 (43.2)	113 (66.9)
Separated/divorced	6 (6.3)	10 (13.6)	16 (9.4)
Widowed	4 (4.2)	30 (40.5)	34(20.1)

2 transgender are unmarried. Numbers in parenthesis indicate percentages

Nearly two thirds of the study population were married. In this study a large number 30 (40.5%) of women were widowed. Of these 18 women said that their spouse died of AIDS. Joardar et al reported that 51.3% of males were married and 88.2% of females were married [12]. Wanyenze et al reported that 26% of the positives were married⁸. Krishnan et al reported that out of the positives 56.6% were married, 23.3% were never married, 10% were separated and 3.3% were widowed [13].

Socioeconomic status of HIV positives was assessed using Modified kuppusswamy classification [14]. 17.5% belonged to class III, majority 73.7% belonged to class IV.

Literacy status of positives was also assessed and it was found that highest numbers of positives were illiterates (38.6%), primary school (12.9%), Middle school (19.8%), high school (18.7%) intermediate (8.2%) and graduates were 1.8%. As the level of education increased the positivity has decreased.

Table 6: Distribution of HIV positives by their risk behavior (N=171)

Risk	Male N=95	Female N=74
Visit to commercial sex workers	29 (30.5)	0 (0.0)
Non regular sex partner	44 (46.3)	4 (5.4)
Regular sex partner	8 (8.4)	8 (10.8)
Blood transfusion	8 (8.4)	6 (8.1)
Did not answer	4 (4.3)	13 (17.6)
Promiscuous behaviour of spouse	2 (2.1)	41 (55.4)
Commercial sex workers	0 (0.0)	2 (2.7)

Numbers in parenthesis indicate percentages

Of the 171 people 2 were transgender. 2 males also reported not having any sexual contacts and having injections from an RMP in the village where the needles were not changed. Sexual promiscuity was the major risk behaviour among men, which account for 85.2%, more than half the women said their spouses had risk behaviour. No homosexuality was reported in the present study.

Deswal et al reported that 57.1% of HIV positives had heterosexual promiscuous behaviour, 33.3% had history of blood transfusion and homosexual behavior [15]. Jayarama et al reported that 35.7% of males who were positive had visited commercial sex workers [7]. Wanyenze et al reported that 22% of positives had regular sex partner and 26% had non regular sex partner [8].

Table 7: Knowledge regarding disease, cause, test and treatment before and after counseling among HIV positives

Knowledge	Before counseling	After counseling	Change in percent	P value
Heard of disease	87 (50.9)	133 (77.8)	+26.9	<0.001
Cause of the disease	79 (46.2)	121 (70.8)	+24.6	<0.001
Test for diagnosis	129 (75.4)	156 (91.2)	+15.8	<0.001
Knowledge about Treatment	54 (31.6)	139 (81.3)	+49.7	<0.001
Knowledge about prevention	72 (42.0)	92 (53.8)	+11.8	<0.05

Numbers in parenthesis indicate percentages

There was a significant difference observed regarding knowledge about disease, cause of the disease, test for diagnosis, treatment and prevention. The change in knowledge was numerically more regarding treatment, disease, and cause of disease when compared with others.

Knowledge regarding transmission of HIV before and after counseling in HIV positives was assessed and presented in table no 8.

Table 8: Knowledge regarding transmission of HIV before and after counseling in HIV positives (N=171)

Knowledge	Before counseling	After counseling	Change in percent	P value
Sexual route	84 (49.1)	133 (77.8)	+28.7	<0.001
Blood transfusion	42 (24.6)	70 (40.9)	+16.3	<0.001
Sharing of needles	46 (26.9)	83 (48.5)	+21.6	<0.001
Mother to child	6 (3.5)	6 (3.5)	0	>0.05
Misconceptions	8 (4.7)	0 (0.0)	-4.7	<0.001

Numbers in parenthesis indicate percentages

In the present study difference in knowledge regarding sexual route, blood transfusion, sharing of needles was statistically significant. People who had misconceptions were cleared of them, which was also significant. In knowledge regarding mother to child transmission there was no change. Sangole et al reported that there was increase in knowledge regarding transmission after the counseling and it was significant statistically [16].

Table 9: Change in knowledge before and after post test counseling among HIV positives regarding prevention (N=171)

Knowledge	Before counseling	After counseling	Change in percent	P value
Abstinence	10 (5.8)	22 (12.9)	+7.1	<0.02
Be faithful	30 (17.5)	65 (38.0)	+20.5	<0.001
Use of condom	44 (25.7)	83 (48.5)	+22.8	<0.001
Safe blood	26 (15.2)	56 (32.7)	+17.5	<0.001
Disposable needles	20 (11.7)	59 (34.5)	+22.8	<0.001

Numbers in parenthesis indicate percentages

In the present study knowledge regarding prevention has improved in all the fields and it was significant statistically. Sangole et al. reported similar findings though the change in knowledge regarding use of condom was significant only a total of 48.5% were aware of use of condom, which means that more than half the positives were not aware of this. All the HIV positives were asked whether they intend to disclose the test result to their spouse/partner. 2 transgender do not have spouse/family. Considerable number of respondents 106 (62.7%) have answered they intend to reveal the information to the spouse/partner. Intention to reveal the positivity was observed more among men to the extent of 89.9% when compared with 37.8% among women. When enquired into reasons for not revealing/not answering were strained marital relationship/breakdown of family. Marks et al reported that 52% of men disclosed their status to their partner [17].

Taking CD4 count and bringing spouse / partner for testing

Of the 171 positives 163(95.3%) have undergone CD4count. But only 90(52.6%) have brought their spouse/partner for testing. In this 90 couples 24(26.7%) were found to be sero-discordant couples. Deepa et al reported in their study that 34.0% were serodiscordant couples [18].

Conclusion

Effectiveness of counseling among negatives was measured by the following indicators.

1. Percentage of people who have got repeat test done- 22.5%
2. Percentage of people who knew about window period- 22.9%
3. Percentage of people who had increase in knowledge about prevention: Abstinence +12.9%, be faithful +13.4%, Use of condom +14.7%, safe blood + 28.3% use of disposable needles and syringes + 28.6%
4. Percentage of people who had intended change in behaviour- 63.4%

The indicators reflect that the effectiveness of counseling on test negatives was not good.

Effect of counseling was assessed among HIV positives by the following

1. Percentage of people who will reveal their positivity to their spouse/ partner- 62.7 %
2. Percentage of people who brought their spouse for testing- 52.6%
3. Percentage of people who had a positive change in knowledge about prevention- 53.8%
4. Percentage of people who had a positive change in knowledge about treatment- 81.3%
5. Percentage of people who were using Condom- 47.4%
6. Percentage of people who had undergone CD4 count- 95.3%

The counseling has been found to be quite effective in HIV positives with regard to revealing to spouse/sex partner, treatment and compliance with CD4 testing. Moderately effective with regarding to knowledge about prevention and transmission. Less effective regarding use of condom.

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References

1. Sweat M, Gregorich S, Sangiwa G, Furlonge C, Balmer D, Kamenga C, et al. Cost-effectiveness of Voluntary HIV-1 counselling and testing in reduced sexual transmission of HIV-1 Kenya and Tanzania. *Lancet*. 2000; 356(9224):113-21.
2. Thielman NM, Chu HY, Ostermann J, Itemba DK, Mgonja A, Mtweve S, et al. Cost-effectiveness of free voluntary counselling and testing through a community based AIDS service organisation in Northern Tanzania. *Am J Public Health*.2006; 96(1):114-8
3. Singh N, Kaimal S, Thappa DM. Sexual behaviour of clinic attendees in a tertiary care hospital in Pondicherry. *Indian J Sex Transm Dis* 2008; 29:18-22
4. NACO 2007 National Behavioural surveillance survey,2006 [internet] [cited on 2008 Oct 25] available from URL; http://www.nacoonline.org/upload/NACO%20PDF/General_Population.pdf
5. Jewkes R, Dunkle K, Nduna M, Levin J, Jama N, Khuzwayo N, et al. Factors associated with seropositivity in young rural South African men. *Int J Epidemiol*. 2006; 35(6):1455-60.
6. Rahbar T, Garg S, Guptha VK, Tripathy R, Singh MMI. Knowledge, attitude, behaviour, practice regarding HIV/AIDS among pregnant women attending PPTC programme in New Delhi[abstract] . In: 34th National Conference of IAPSM; 2007 Feb 22-24; New Delhi: Centre for Community Medicine; AIIMS; New Delhi; 2007.p113. Abstract no O-30
7. Jayarama S, Shenoy S, Unnikrishnan B, Ramapuram J, Rao M. Profiles of attendees in voluntary counselling and testing centre of a Medical College in coastal Karnataka. . *Indian J Community Med*. 2008; 33(1): 43-6
8. Wanyenze RK, Nawavvu C, Namale AS, Mayanja B, Bunnell R, Abang B, et. al. *Bull. World Health Organ*. 2008; 86(4):302-9.
9. Hightow LB, Miller WC, Leone PA, Wohl D, Smurzynski M, Kaplan AH. Failure to return for HIV post -test counselling in an STD clinic population. *AIDS Educ Prev* .2003; 15(30):282-90.
10. Bwambale FM, Ssali SN, Byaruhanga S, Kalyango JN, Karamagi CA. Voluntary HIV counselling and testing among men in rural western

Uganda: implications for HIV prevention. *BMC Public Health* 2008 Jul 30; 8:263.

11. Li X, Wang B, Fang X, Zhao R, Stanton B, Hong Y, et al. Short term effects of a cultural adaptation of voluntary counselling and testing among female sex workers in China: A quasi-experimental trail. . *AIDS Educ Prev* .2006;18(5): 406-19.

12. Joardar GK, Sarkar A, Chateerjee C, Bhattacharya RN, Sarkar S, Banerjee P. Profiles of attendees in the voluntary counselling and testing centre of North Bengal Medical College in Darjeeling District of West Bengal. *Indian J Community Med*.2006;31(4) P237-40.

13. Krishnan AK, Hendriksen E, Vallabhaneni S, Johnson SL, Raminani S, KumarasamyN, et al. *AIDS Educ Prev* .2007;19(4) :334-45

14. Kuppuswamy socioeconomic status scale- A revision. *Indian J Pediatr* 2003 Mar;70:273

15. Deswal BS, Bhatnagar D, Kumar D, Deshpande VR. A study of prevalence of HIV in tuberculosis cases. *Indian J Community Med* 2002; 28(2):80-3.

16. Sangole S, Tandale BV, Bagde PS, Thorat DM. Evaluation of impact of health education regarding HIV/AIDS on knowledge and attitude among persons living with HIV. *Indian J Community Med* 2003; 28(1):30-3.

17. Marks G and Crepaz N. HIV-positive men's sexual practices in the context of self-disclosure of HIV status. *J Acquir Immune Defic Syndr*. 2001; 27(1):79-85.

18. Deepa V, Rajasekharan S, Patric N et al. A study of sexual behaviour among sero-discordant couples visiting GHTM. [Thesis for fellowship]. Chennai. Government Hospital of Thoracic Medicine. 2007; 94.

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