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Original Research Article

Participatory training program on HIV/AIDS among anganwadi workers for training adolescent girls: an experience from a rural area of Karaikal, Puducherry, India

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ABSTRACT

Background: Recently HIV epidemic in India was gradually escalating to low risk groups like adolescents. Focusing on adolescent empowerment is the strategy for obtaining their adherence to prevention of HIV/AIDS. Though anganwadi workers (AWWs) play a critical role in creating awareness on behaviour change in the community; also, they need an excellent knowledge on HIV/AIDS before creating awareness to the community. So, this study aimed to assess the knowledge on HIV/AIDS among adolescent girls and AWWs and also to determine the effectiveness of Participatory Training Program to AWWs in bringing improvements in the knowledge among adolescent girls.
Methods: Present quasi-experimental study was conducted among adolescent girls ages 15 to 18 years at Serumavilangai Village, Karaikal, Puducherry during June-September 2018. AWWs from the selected village were included for participatory training program.
Results: Total 86 adolescents participated the survey. Awareness regarding HIV/AIDS was only 40% before intervention. FGD among AWWs showed poor knowledge on HIV/AIDS. During intervention, AWWs were used as a medium for giving interventions, it was observed that there was a wide difference in their knowledge of adolescent girls before and after intervention (81.4%) on HIV/AIDS with statistical significance (0.03).
Conclusions: Before intervention awareness on HIV/AIDS were lacking in both adolescent girls and AWWs. This shows a difficulty in accessing health information in rural India. Therefore, providing periodic training programme to AWWs as peer health educators for disseminating information on HIV/AIDS may bridge the gap by proving valid information's to high risk groups in the community.

Keywords: Adolescent girls, Anganwadi workers, HIV/AIDS prevention, Participatory training programme

INTRODUCTION

HIV/AIDS is one of the global public health issues. Worldwide more than 35 million people affected by HIV/AIDS and around 1 million people died from HIV-related diseases.[1] It was estimated around 40 (34.3-41.4) million people were living with HIV/AIDS and every year consequently 2.0 (1.9-2.2) million people becoming newly infected with HIV/AIDS.[1]

In India during 2015, approximately 1.8-2.9 million people were HIV positive, with an estimated adult HIV prevalence of 0.36%.[2,3] Though HIV epidemic in India continues to be concentrated with high risk behaviour population and in recent years it was gradually escalating to low risk groups like adolescents, pregnant women and newborns.[3] The reason behind this transform in epidemic is mainly due to illiteracy, which leads to lack of knowledge and awareness on HIV/AIDS in the community. Therefore, there is an urgent necessity to

frame an action plan to recognize the targeted individuals in the community so that to impart prior knowledge and awareness on HIV/AIDS for further prevention.

Focusing on adolescent empowerment is one of an exultant strategy for obtaining their adherence to prevention of HIV/AIDS.[2] Yet there is a lacuna in implementing and disseminating this strategy due to lack of manpower and poor accessibility to health care and health information which is the biggest challenge in rural part of India. In view of this situation, locally available persons in the community can be used to play an important role in imparting knowledge about HIV/AIDS to the community people. Anganwadi workers (AWWs) are such person who plays the medium of communication to the community. AWWs are easily accessible and they are easily acceptable in the rural community. AWWs are frequently involved in health care activities which require community contacts; therefore, they are able to recognize at risk groups in the community easily. So AWWs can be utilized as key informants in identifying suspected persons with high-risk behaviour and prevent further spread of the disease.

Though AWWs play a critical role in creating awareness on behaviour change in the community; also they need an excellent knowledge on HIV/AIDS before creating awareness to the community.[4-6] There have been vacuities in Indian studies on assessing knowledge on HIV/AIDS among adolescent girls and AWWs.[4-7] The impact of effectiveness of participatory training program to AWWs in bringing improvements in the knowledge on HIV/AIDS among adolescent girls has been largely over looked and under studied. So, this study aimed to assess the knowledge on HIV/AIDS among adolescent girls and AWWs and also to determine the effectiveness of participatory training program to AWWs in bringing improvements in the knowledge among adolescent girls.

METHODS

Present quasi-experimental study was conducted at Serumavilangai Village, Karaikal, Puducherry during June 2018 to September 2018. The study included all willing adolescent girls in the age group 15 to 18 years residing at Serumavilangai village. Informed consent was obtained from the parents/ guardian of the adolescent girls before the interview. Anganwadi workers from the selected village were included for participatory training program.

Study tools

Pre-designed and pre-tested questionnaire was used to assess the adolescent girl's knowledge on HIV/AIDS before and after intervention. Thus total 86 adolescent girls registered in anganwadi centres were assessed for improvement in their knowledge on HIV/AIDS before and after intervention. Focused group discussions (FGDs) were conducted among AWWs to assess their knowledge on HIV/AIDS.

Intervention

Participatory training program was conducted by experts from a teaching institute. Training included lecture demonstration, role play, videos and health education materials like charts, pamphlets. AWWs were used as medium of instructor for educating the study population.

Data collection procedure

Serumavilangai village was covered by four anganwadi centres. All four anganwadi centres were included for the study. Data regarding all beneficiaries (antenatal/postnatal mothers, under-five children and adolescent girls) registered in each anganwadi centres were obtained to maintain the confidentiality of the study participants. Adolescent girls in the age group of 15-18 years were selected as the study participants. By universal sampling all 86 adolescent girls registered in the anganwadi centres were selected for the present study. House to house visit was done to each of the study participant to assess their knowledge on HIV/AIDS using a pre-designed and pre-tested questionnaire (June 2018).

FGDs were conducted to AWWs to assess their knowledge on HIV/AIDS prior to the Participatory Training Program. Each anganwadi centre has one teacher and assistance. Total 8 AWWs were participated for the study. Followed by FGDs, two sessions of participatory training program regarding HIV/AIDS was given to anganwadi workers with one-month interval (June and July 2018) and they are stressed upon to educate the people covered under their respective coverage area. The study participants were not revealed to the AWWs. Confidentiality and anonymity were maintained throughout the study period. After 2 completed months (September 2018) of the second participatory training program to the AWWs, post-test was done to the same set of adolescent girls to assess their knowledge on HIV/AIDS.

Statistical analysis

Data represented in percentages. Wilcoxon test was done to assess the difference in their knowledge before and after intervention. P value less than 0.05 is considered statistically significant. Content analysis was done for FGDs.

RESULTS

Total 86 adolescent girls and 8 AWWs were included for the study. The mean age of the adolescent girls was 15±0.7 years. Out of 86 adolescent girls 58 (67.4%) girls were discontinued their schoolings and among them 49 (84.5%) girls were working in the nearby small-scale industry.

Table 1 shows the knowledge on HIV/AIDS among adolescent girls before intervention. More than 40% of them assume that HIV/AIDS is the hereditary disease that passes from one generation to another. Around 55% of them said that HIV/AIDS can be transmitted through bite of an insect also. The overall knowledge among the adolescent girls was very poor. The mean age of the AWWs were 36±2.8 years. Almost all the AWWs were employed more than 5 years in their respective centres. All the workers were literate (75% completed their higher secondary/ 25% completed their under graduation). Average working time in the centre was approximately 5.8 hours. All AWWs were residing in the respective anganwadi centres areas.

Total two FGDs conducted, for each FGD 4 AWWs were participated. Table 2 shows the content analysis of FGDs on HIV/AIDS among AWWs. The knowledge on HIV/AIDS among AWWs was poor. Almost all the AWWs were not aware of the risk of HIV/AIDS transmission, accidental exposure and treatment options in the government centres.

Table 1: Knowledge on HIV/AIDS among adolescent girls before intervention (n=86).

Indicators	Number of correct response before health education	
	N	Percentage
Meaning for HIV	24	27.9
Is HIV is hereditary disease?	47	54.6
Does HIV only affect gay people?	43	50.0
Best protective method against HIV infection	43	50.0
Can you get AIDS from sharing the cup of an HIV-infected person?	51	59.3
Which practice puts you most at risk of becoming infected with HIV?	63	73.2
Can insects transmit HIV	39	45.3
Is there any treatment for accidental exposure of HIV virus?	39	45.3
Overall correct response	35	40.7

Table: 2 Qualitative data analysis: content analysis of focus group discussions on HIV/AIDS.

Category	Codes	Responses of the participants
Knowledge on HIV/AIDS	HIV/AIDS meaning	Out of 8 participants, only one participant answered that HIV stands for human immuno-deficiency virus and that is the main cause for AIDS. All Participants acknowledged that AIDS as a dangerous disease. However, they could not utter the full meaning of HIV/AIDS.
	Mode of transmission of HIV/AIDS	Regarding modes of transmission of disease, most of them whispered with negative facial expressions “sexual route is the predominant route and only males can transmit the disease because they will acquire infection from prostitutes”. Participants also said even sharing of objects can also transmits infection. Further the investigator probed the participants to list the objects that transmit HIV/AIDS, they said erroneously “even sharing of cups and food items can transmits infection”. Majority of the AWWs did not aware about risk of mother to child transmission and sharing of needles for HIV/AIDS transmission. Knowledge on modes of transmission for HIV/AIDS among AWWs was very poor.
	Knowledge on accidental exposure of HIV/AIDS	Only one respondent reported that accidental exposure occurs using a shared needle. Further probing by the facilitator almost all reported that accidental exposure does not occur without the knowledge of the person. No one is aware of the prophylaxis treatment for accidental exposure of HIV/AIDS available in government hospitals.
Expectation from government health system	Role of government health system	Almost all AWWs said that it is the duty of doctors and staff nurse in government hospital to take part in creating awareness on HIV/AIDS. Doctors and ANMs can arrange special health education sessions for adolescents, expecting mothers and their husbands.

Table 3: Comparison of knowledge on HIV/AIDS among adolescent girls before and after participatory training program to AWWs.

Indicators	Number of correct response before participatory training program (n=86)		Number of correct response after participatory training program (n=86)		z	P value
	N	%	N	%		
Meaning for HIV	24	27.9	86	100.0	-3.153	0.002
Is HIV is hereditary disease?	47	54.6	86	100.0	-2.449	0.014
Does HIV only affect gay people?	43	50.0	70	81.4	-1.000	0.317
Best protective method against HIV infection	43	50.0	74	86.0	-2.127	0.034
Can you get AIDS from sharing the cup of an HIV-infected person?	51	59.3	82	95.3	-1.633	0.102
Which practice puts you most at risk of becoming infected with HIV?	63	73.2	86	100.0	-1.342	0.180
Can insects transmit HIV	39	45.3	70	81.4	-2.449	0.014
Is there any treatment for accidental exposure of HIV virus?	39	45.3	86	100.0	-2.309	0.021
Overall Difference in knowledge between before and after health education (>5/10)	35	40.7	70	81.4	-3.000	0.003

*Wilcoxon test.

Table 3 shows the knowledge on HIV/AIDS among adolescent girls before and after intervention to AWWs. AWWs were used as a medium for giving interventions. It was observed that there was a wide difference in their knowledge of adolescent girls before and after intervention on HIV/AIDS with statistical significance (p=0.03).

DISCUSSION

Though, accessibility to health information is the biggest challenge in rural part of India. AWWs can be utilized as key informants in disseminating knowledge on high risk behaviour and prevent further spread of the disease to the community. So, this study aimed to assess the knowledge on HIV/AIDS among adolescent girls and AWWs and also to measure the effectiveness of participatory training program to AWWs in bringing improvements in the knowledge among adolescent girls.

Awareness and knowledge of the disease is mandatory for prevention of any diseases in the community. The present study shows that the awareness of adolescent girls on HIV/AIDS before intervention is very poor. More than 50% of the girls said that the HIV/AIDS disease can be transmitted through bite of an insect and also there are not aware of the treatment for accidental exposure of HIV/AIDS. This shows that the basic knowledge on HIV/AIDS prevention and control were lacking. This may be due to illiteracy prevailing among them.

The biggest change in disseminating awareness to community is that the communicator should have knowledge on the subject. The results from FGDs from the present study revealed that AWWs were having an inadequate knowledge regarding high-risk behaviour and the modes of treatment available in government centres for HIV/AIDS. Similar to this study Patil et al and Garg PN et al were also reported that AWWs has very poor knowledge of HIV/AIDS.[5,7] However, study conducted by Kushwah et al reported that AWWs are well aware about the prevention of HIV/AIDS.[8] This lack in knowledge on HIV/AIDS among AWWs shows that they are in need of periodic training to sustain knowledge for disseminating information.

AWWs can be utilized for imparting informative knowledge to the community. This study shows that there was a wide difference in knowledge gain among adolescent girls after intervention of AWWs which helps to reduce stigma among them. Similar to this study, other studies also showed significant improvement in awareness among rural population after involving AWWs for imparting knowledge and awareness on HIV/AIDS.[4,6] This shows engaging AWWs in activities promoting healthy behaviour favors healthy community.

CONCLUSION

On preliminary survey before participatory training programme to AWWs, awareness on HIV/AIDS were lacking in both adolescent girls and AWWs. This shows a difficulty in accessing health information in rural India. Therefore, providing periodic training programme to Anganwadi workers as peer health educators for disseminating information on HIV/AIDS may bridge the gap by proving valid information's to high risk groups in the community. Participatory training programme to AWWs is one of the more effective and feasible methods to educate the community. Therefore, it is recommended to conduct periodic training program to improve and sustain the skills of AWWs.

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