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The Role of Nurses in Organizing HIV Prevention Work in Educational Institutions

[1]Mirkhamidova Sevara, [2]Rustamova Khamida, [2]Umarov Botirjon, [2]Kamilova Dilfuza, [3]Pakhrudinova Nigora

[1]Tashkent Medical Academy, Tashkent, Uzbekistan.

[2]Tashkent State Dental Institute, Tashkent, Uzbekistan.

[3]Uzbek state university of physical culture and sport, Tashkent, Uzbekistan.

E-mail: s.mirkhamidova@tma.uz

ABSTRACT: The article is devoted to the role of nurses in the prevention of immunodeficiency virus. Since nurses, by virtue of their activities, are closest to the sick and their families, they are able to create the most favorable atmosphere for them, which is very important for the success of treatment and control. Today's nurse is the foremost force of modern medicine. It plays an important role in the implementation of health reforms. Based on international requirements, the nursing education system is being improved.

KEYWORDS: HIV infection, nurses, health, social problem, prevention work, educational institutions, pupil.

INTRODUCTION

The success of any educational prophylactic program on HIV infection depends mainly on the preparedness of the teacher, scientific, methodological and material and technical support of the educational process. When selecting informational and methodological materials for a preventive program, it is important to take into account the national, regional, social and age characteristics of trainees' groups, existing cultural norms, the level of training and awareness of the audience. Admittedly, HIV represents a global health and development emergency and one of the fateful issues of our time. More than 25 million people have already died from it, and the number of people living with HIV continues to increase. According to UNAIDS, the number of cases in the world is over 36 million. Every day 7,400 new cases of HIV infection are detected worldwide, and 5,500 people die from AIDS-related illnesses. More than 17 million children in the world have lost one or both parents [1,7,8].About 50 thousand HIV-infected people have been identified and registered in Uzbekistan, of which more than 5 thousand are children under the age of 15. The most affected cities of the Republic of Uzbekistan include industrialized regions with a higher level of income of the population: the city of Tashkent, Tashkent region, Andijan, Samarkand, Fergana, Surkhandarya. In terms of the absolute number of registered cases of HIV infection, the city of Tashkent has been consistently leading over the past years: more

than 15 thousand HIV infections have been registered in the city of Tashkent (as of the end of 2019). All social and age groups of the population are involved in the epidemic process of HIV infection. Despite the pronounced tendency to involve older age groups in the HIV epidemic process, young people account for the largest proportion of HIV-infected people [2].

Taking into account the international experience of combating the HIV epidemic and the experience gained in Uzbekistan, it can be stated that preventive education in the field of HIV infection will not only reduce the threat of infection, but also create attitudes in the younger generation to develop skills for a healthy lifestyle and responsible behavior.Young people are a powerful resource for prevention activities. It is easier to maintain safe behaviors and attitudes if you get used to them beforehand. The need for awareness-raising activities among the population, especially among young people, who are at the greatest risk of HIV infection, is beyond doubt [3,4,7].Students of all educational institutions of the Republic of Uzbekistan, regardless of their form of ownership, training programs and other differences, have the right to receive adequate and complete information that would help them avoid HIV infection. The ultimate goal of the training is to motivate a young person to make an independent and conscious choice of behavior that prevents the risk of HIV infection.More than 90% of children and adolescents pass through the educational institutions of the city of Tashkent every year. Educational institutions have a significant impact on the formation and development of the student's personality; have access to the minor's family and mechanisms for influencing the family situation; have qualified specialists (teachers, psychologists, social workers, etc.), therefore, the educational environment is the most optimal for effective prevention work in the field of HIV infection, the formation of a tolerant attitude towards HIV-infected.

An important role in preventive education belongs to the teacher, who must have appropriate professional training and possess effective methods of preventive work. A necessary condition for improving the professional competence of teachers is educational and methodological support of the educational process.

According to WHO experts, it is possible to reduce the rate of development of the epidemic, first of all, by educating people in order to change their behavior towards a safe one[5,6].

The educational environment has a great resource for direct and indirect influence on the value system of children and adolescents, which allows, depending on the target audience and expected results, to implement prevention programs of various levels. Preventive work

can be carried out both through subject teaching and through the organization of extracurricular activities of students. The use of multiple approaches to prevention, which is only possible in an educational environment, significantly increases its effectiveness. Children and adolescents in the educational environment have not yet formed a system of life values, which can be tried to change by carrying out preventive work and increasing motivation for a healthy lifestyle. Education and information in the field of HIV infection involves the provision of comprehensive and accurate information: about the mechanism of infection, the ways of transmission of HIV infection, circumstances that increase the risk of infection (drug abuse, etc.), about the measure prevention. Educational activities in educational institutions should be based on certain principles of informing about HIV, the need to comply with which has been proven by international experience and confirmed by specialists from the World Health Organization (WHO). Taking into account the above, in recent years in Uzbekistan, special attention has been paid to the development of nursing, especially at the level of primary medical and social care, to increasing the role of a nurse in organizing and conducting preventive work on HIV infection.

Goal and tasks. The purpose of our work is to develop and scientifically substantiate directions for improving the role of nurses in the prevention of HIV infection on the basis of a comprehensive medical and organizational research.

Achieving this goal involves solving problems:

• Analyze the level, structure and dynamics of changes in the HIV epidemic situation among the population.

• To study the awareness of some contingents of the population and nurses about HIV infection.

• To study the attitudes of some contingents of the population and nurses towards people living with HIV.

• Scientifically substantiate, develop and implement a set of measures to improve the work of nurses on HIV prevention.

• To develop guidelines for nurses on the implementation of an innovative direction of HIV prevention among some contingents of the population.

MATERIALS AND METHODS

This work is a complex organizational, socio-hygienic and medical-statistical research. It provided for the solution of a number of tasks that would allow developing recommendations for nurses on the implementation of an innovative direction for the prevention of HIV infection among the population. In accordance with the tasks, a research

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program was drawn up, which includes 5 stages. The choice of research objects was determined in accordance with the tasks and stages of work. **The search for literary sources** was carried out using the bibliographic databases Web of Science, Scopus, DBLP, Medline. When selecting sources, they paid attention to experimental articles, literary reviews, the number of their citations over the past year.

RESULTS

With the participation of the school nurse, a number of seminars, sanitary and educational works were held on the basis of the methodological recommendation "The role of nurses in organizing HIV prevention work in educational institutions" as well as the methodological manual "Methods of HIV infection prevention used by nurses in educational institutions". The seminars were conducted using ICT, booklets, brochures, presentations, etc. All were tested before and after the workshop using a specially designed questionnaire to determine the level of awareness on HIV infection. The tables below show the results of the survey. Pupils of the 9th, 10th, 11th grades (85%), teachers (8%) and parents (7%) of secondary school No. 276 were under observation.

Activities	Student		Teacher		Parent		**All**	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
	170	85	16	8	14	7	200	100

The age of the participants was between 14-18 years old (85%), 19-35 years old (8%) and 36 years old and above (8%).

Age	**14-18**		**19-35**		**36 andup**		**All**	
	Abs.	%	Abs.	%	Abs.	%	Abs.	%
	170	85	15	8	15	8	200	100

Before the seminar, the participants considered the problem of HIV infection less urgent for our city (41%), but this indicator increased after the seminar to 92%.

In your opinion, is there a problem of HIV infection in our city?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	81	41	119	60	200	100
After	183	92	17	9	200	100

Most of the participants (60%) do not know what AIDS is or think that it is the same as HIV. But after the training seminar, they realized that HIV is a causative agent (92%), and AIDS is the last stage of the disease (75%).

Is AIDS the same as HIV?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	80	40	120	60	200	100

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After	150	75	50	25	200	100

Is AIDS caused by the Human Immunodeficiency Virus (HIV)?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	57	29	143	72	200	100
After	184	92	16	8	200	100

Many respondents believed that not only people were infected with HIV (76%).

Do only people get HIV?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	48	24	152	76	200	100
After	144	72	56	28	200	100

After the training seminar, many learned that blood and sexual fluids are the main habitat of HIV (88%).

Is HIV transmitted through blood, genital fluids?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	70	35	130	65	200	100
After	176	88	24	12	200	100

The majority of the participants were schoolchildren, but they did not know that HIV can be transmitted through intravenous drug use (38%). It should be noted that this indicator increased after the trainings by 2.5 times (94%).

Can I get HIV from intravenous drug use?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	75	38	125	63	200	100
After	188	94	12	6	200	100

To the question “Is it possible to get HIV through kissing?” Only 9% answered correctly, but after the measures taken, the answers of the research participants were correct in 77% of cases.

Can you get HIV from kissing?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	17	9	183	92	200	100
After	154	77	46	23	200	100

Almost 2/3 of the participants before the seminar did not know that HIV can be transmitted through unprotected sex (66%).

Can HIV be transmitted through sexual contact?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	68	34	132	66	200	100
After	121	61	79	40	200	100

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Many respondents thought that an HIV-infected mother could not give birth to a healthy child (88%).

Can an HIV-infected mother give birth to a healthy baby?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	24	12	176	88	200	100
After	91	46	109	55	200	100

In the tables below, you can see that the majority of participants believe that HIV is transmitted by airborne droplets (79%), i.e. low awareness of the ways of transmission of this infection (78%) and in most cases causes fear of communicating with an HIV-infected person (61%).

Can you get infected by communicating with an HIV-infected person?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	42	21	158	79	200	100
After	161	81	39	20	200	100

Can you get HIV if someone sneezes or coughs at you?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	44	22	156	78	200	100
After	150	75	50	25	200	100

Is it dangerous to be in the same classroom with an HIV-infected child?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	79	40	121	61	200	100
After	68	34	132	66	200	100

But after the seminars, these indicators have noticeably changed in a positive direction. The trainees made a conclusion for themselves in what situations HIV is not transmitted, and that in everyday life an HIV-infected person is not dangerous, they can live in their families and infection does not occur through everyday contacts.

The risk of infection can only arise in the course of first aid for accidents involving bleeding, so the participants were shown the skills to safely handle injuries to people with HIV.

To the question "Can you get infected if you stop the blood of an HIV-infected person without rubber gloves?" only a third of the respondents gave the correct answer. In this regard, we explained to the listeners that in case of possible contact with blood during the provision of assistance, whether a person is infected with HIV or not, assistance must be provided with latex gloves, and after the seminar, 81% of the listeners answered this question correctly.

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Can you get infected by stopping the blood of an HIV-infected person without rubber gloves?	Correctanswer		Incorrectanswer		All	
	Abs.	%	Abs.	%	Abs.	%
Before	68	34	132	66	200	100
After	161	81	39	20	200	100

To the question asked before the seminar "Do HIV-infected people outwardly look like healthy people?" only one-fifth answered that HIV-infected people do not differ in any way from healthy people. At the seminar, we noted that there are no visible signs of the presence of HIV in the human body. Therefore, a person may not know that he is HIV-infected. Outwardly, an HIV-infected person looks the same as an uninfected ordinary person. After the seminars, 78% of the participants agreed with this belief, that is, the listeners' opinion changed more than 3 times.

Do HIV-infected people look the same as healthy people?	Correctanswer		Incorrectanswer		All	
	Abs.	%	Abs.	%	Abs.	%
Before	41	21	159	80	200	100
After	156	78	44	22	200	100

A new message for the seminar participants was that an HIV-infected person can transmit the virus throughout his life (up to 44%, after - 91%).

Can an HIV-infected person transmit the virus to others throughout their life?	Correctanswer		Incorrectanswer		All	
	Abs.	%	Abs.	%	Abs.	%
Before	87	44	113	57	200	100
After	182	91	18	9	200	100

Only a third of the respondents had an idea that HIV infections lead to a decrease in immunity due to the destruction of the human immune system by the virus (HIV) and the loss of the body's ability to resist various diseases (37%). During the seminars, the necessary information was given about the course of this infection, its consequences.

Does HIV reduce the body's ability to fight off other infections and diseases?	Correctanswer		Incorrectanswer		All	
	Abs.	%	Abs.	%	Abs.	%
Before	73	37	127	64	200	100
After	167	84	33	17	200	100

Thus, the knowledge of the participants in the seminars about the possibilities of treating HIV infection increased almost 4 times (from 24% to 85%), many learned that it is not currently possible to cure a patient from HIV infection, but antiviral therapy can take the process of HIV multiplication in the body under control and significantly extend the life of the patient.

Is HIV infectioncurable?	Correctanswer		Incorrectanswer		All	
	Abs.	%	Abs.	%	Abs.	%
Before	47	24	153	77	200	100

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After	169	85	31	16	200	100

A positive result indicates that a person has become infected with HIV and this result persists for life (51%).

Does a positive HIV test result mean a person has HIV?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	20	10	180	90	200	100
After	102	51	98	49	200	100

Negative test results during the "window period" may be associated with low antibody levels during this period and do not rule out infection. Therefore, during this period of time, a negative test result does not mean that there is no HIV in the human body. It was explained to the participants that immediately after a dangerous contact with an HIV-infected person, an HIV test can be negative (59%), although even after the explanation, 41% did not agree with this belief and remained unconvinced.

Will the HIV test be positive immediately after a dangerous contact with an HIV-infected person?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	48	24	152	76	200	100
After	118	59	82	41	200	100

In our country, according to the Constitution of the Republic of Uzbekistan, the guarantee of the rights of citizens is protected by law, and no one has the right to discriminate against HIV-infected people. But, unfortunately, low awareness, as well as personal dislike for these patients, shows an unfavorable attitude towards them (91%).

Does a classmate have the right to refuse to study together with an HIV-infected student?	**Correctanswer**		**Incorrectanswer**		**All**	
	Abs.	%	Abs.	%	Abs.	%
Before	19	10	181	91	200	100
After	80	40	120	60	200	100

DISCUSSIONS

The level, structure and dynamics of changes in the epidemic situation for HIV infection in the districts of the city of Tashkent for the period from 2010-2019 was analyzed. The prevalence of risk factors for HIV infection among the population of Tashkent city was studied. The awareness of some contingents of the population regarding HIV infection has been analyzed. Determined the level of awareness of nurses of family polyclinics, health care facilities and specialized AIDS centers in Tashkent in issues of HIV infection.

CONCLUSIONS

The HIV epidemic poses a threat to the stability of the development of modern society in most countries of the world, including Uzbekistan. To date, HIV infection has been

registered in all regions and cities of the Republic of Uzbekistan. Taking into account the international experience of combating the HIV epidemic and the experience gained in Uzbekistan, it can be stated that preventive education in the field of HIV infection will not only reduce the threat of infection, but also create attitudes in the younger generation to develop skills for a healthy lifestyle and responsible behavior. This disease is a socio-medico-biological phenomenon, characterized by dynamism, increasing negative effects, and combines the signs of an emergency and a long-term problem. This situation requires both the adoption of immediate response measures and the development of a system of long-term protection and counteraction.

Currently, most of the programs for the prevention of HIV infection in the most vulnerable groups of the population, which were successfully implemented in previous years, have practically been phased out, and preventive measures carried out among the general population and based solely on promoting a healthy lifestyle are ineffective for these groups of population.

In connection with the above, the start of preventive work should be as early as possible, since it is not so much information and educational work that can be considered effective in the direction of preventing HIV infection, but constant purposeful activity to form the value and skills of leading a healthy, safe lifestyle. which takes quite a long time.

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