

Health education of blood donors on HIV viral infections

Edukacja zdrowotna dawców krwi na temat zakażeń wirusowych HIV

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Streszczenie

Zjawisko zachorowań na HIV w dzisiejszych czasach jest nie tylko problemem medycznym ale także społecznym. Z uwagi na drogi zakażenia, zarazić się może każdy z nas. Obecnie na świecie odnotowuje się stały wzrost zakażeń wirusem HIV. Przekonanie ludzi o braku zagrożenia oraz niecharakterystyczne objawy infekcji bądź ich brak, powoduje,

że wiele osób nie zdaje sobie sprawy z tego, że jest zarażonych. Wiedza na temat sytuacji, w których możemy zostać zainfekowani oraz możliwości dróg transmisji tych wirusów mogą przyczynić się do zmniejszenia ilości nowych zakażeń. Celem pracy było poznanie stanu wiedzy, jaki ma społeczeństwo na temat HIV/ AIDS oraz wskazanie roli edukacji zdrowotnej w walce z chorobami zakaźnymi.

Badaniem objęto 100 osób. Do badań wykorzystano metodę ilościową, natomiast jako technikę badawczą zastosowano socjologiczny kwestionariusz ankiety. Z analizy materiału empirycznego wynika, iż stan wiedzy na temat zakażeń wirusem HIV wymaga edukacji wśród populacji. Co więcej społeczeństwo chętnie będzie uczestniczyć w profesjonalnych szkoleniach na temat zagrożeń HIV/AIDS. Z przeprowadzonych badań wynika, że szkolenia powinny odbywać się cyklicznie, obejmować różne grupy społeczne przy współpracy wielu środowisk nie tylko medycznych. Należy pamiętać, że współpraca wielosektorowa to warunek powodzenia każdego programu poprawy ochrony zdrowia.

Słowa kluczowe: dawcy krwi, zakażenia wirusowe HIV, edukacja, AIDS

Summary

The phenomenon of HIV today is not only a medical problem but also a social one. Due to the pathways of infection, everyone can get infected for us. Currently, there is a steady increase in HIV infection in the world. Convincing people about the lack of danger and the non-characteristic symptoms of infection or their lack, causes that many people do not realize that they are infected. Knowledge about the situations in which we can be infected and the possibility of transmission routes of these viruses can contribute to reducing the number of new infections. The aim of the work was to get to know the state of knowledge about the society about HIV / AIDS and to indicate the role of health education in the fight against infectious diseases. The study included 100 people. The quantitative method was used for research, while the sociological questionnaire was used as a research technique. The analysis of the empirical material shows that the state of knowledge about HIV infection requires education among the population. What's more, the public will be happy to take part in professional training on HIV / AIDS threats. The research shows that trainings should take place periodically, cover various social groups with the cooperation of many non-medical

environments. It should be remembered that multisectoral cooperation is a prerequisite for the success of any health improvement program.

Key words: blood donors, HIV viral infections, education, AIDS

Introduction

In Poland, by 2016, about 22,000 people were infected with HIV and aware of their infection. people, it is estimated that the unconscious is over 10,000 people. Currently, the etiology of HIV, as well as the ways of transmission of the virus are very well known, although infection is one of the most important epidemiological problems in the modern world.

High safety of blood transfusions and its components has been achieved thanks to the introduction of research on markers of viral infections. The duty of the Blood Donation Center is to examine donors and donor candidates for the diagnosis of infectious agents, including hepatitis B and C virus and HIV. The review studies are carried out with serological techniques and molecular biology techniques [1].

In 1995 - 2007, no HIV infection was detected in Poland after blood transfusion or after administration of blood products [2].

Infectious agents that can potentially be transmitted by transfusion are now very well understood. The risk of HIV infection after transfusion and its components is currently negligible. This was achieved through the introduction and use of sensitive tests and reviews of blood donation donors, and by introducing additional procedures limiting the transferability of infectious agents such as:

1. Qualifications of donors on the basis of medical examinations and medical interviews as well as an epidemiological survey;
2. Review studies of viral markers of infection prior to each donation of blood for HBV, HCV and HIV infection using serological tests with the highest sensitivity and specificity, and molecular tests and a screening test for syphilis;
3. Minimizing the possibility of human error through automation, computerization, internal control processes in the course of testing;
4. Depletion of blood preparations to leukocytes through filtration reduces the risk of transmission of infectious diseases by microorganisms contained in leukocytes;
5. Introducing a grace period for the production of blood products;

6. Inactivation of viruses in these blood products in which it is possible [3].

Organizational units of the public blood service maintain a system of watching over the safety of blood and its components collected, examined, processed, stored, published or distributed on the territory of the Republic of Poland, hereinafter referred to as the "system of waking", which allows tracing the blood pathway and its constituents from the blood donor to the recipient blood and vice versa. The system of wakefulness includes health entities that transfuse blood recipients.

The World Health Organization WHO, the European Union and the European Council mandate the obligation to study the markers of infection in every donation and its components. Currently, in the Regional Blood Donation and Treatment Centers in Poland, tests are carried out to detect HCV, HBV, HIV and the bacteria of the pale spirochete that causes syphilis in each donation collected. Directives 2005/61 / EC and 2002/98 / EC impose an obligation on the blood service to ensure that the fate of blood and blood components from the blood donor to the recipient can be fully monitored and vice versa is required by the Blood Donation Centers to have such a system in order to identify each donation and the type of the component [3,8,15].

In the fight against HIV / AIDS, prevention adapted to the recipient is very important. The 21st century is the age of the Internet and social media. Young people are currently actively using the media, it is worth using them to conduct activities in the field of HIV / AIDS prevention. The activities carried out must be interdisciplinary and should be carried out on three levels of prevention:

- 1) 1st order prophylaxis includes the implementation of health programs, health education of the society (among others in the field of stereotypes regarding HIV / AIDS, the fight against stigmatization of people who carry HIV),
- 2) 2nd order prophylaxis includes the promotion of HIV testing,
- 3) 3rd order prophylaxis should focus on increasing the access to HIV treatment for people living with HIV.

Poland as a member of the WHO is obliged to undertake coordinated actions aimed at achieving the set objective. Their organization is dealt with by the National Center for AIDS, which is an agency of the Ministry of Health. The regulation of the Council of Ministers of February 15, 2011 is the main document defining the policy of the Polish state in relation to the HIV / AIDS epidemic. on the National Program for the Prevention of HIV Infections and Combating AIDS, which results in the specific objectives of the National Center for AIDS.

Epidemiology of HIV and AID

The new unknown disease in 1982 was named AcquiredImmune Deficiency Syndrome - AIDS which caused the HIV retrovirus resulting in failure of the immune system in an infected person. Analyzes of medical cases showed that in the USA, Europe and Africa cases of this disease occurred already in the 1950s. A preserved sample of blood infected with HIV dates back to 1959. from Zaire. Most likely, HIV infection appeared between the 20's and 30's of the 20th century, then SIV (Simon ImmunodeficiencyVirus) switched to a chimpanzee in West Africa [4].

Two types of virus have been distinguished: HIV-1, which occurs worldwide and HIV-2, occurring in limited areas of West and Central Africa. HIV1 is responsible for the global pandemic and the research conducted so far concerns this type of virus. HIV in the human body limits the proper immune response, quickly leading to the complete destruction of the immune system. The body is not able to destroy or eliminate the infection, because the virus, after entering the cell, prescribes its genetic material from viral RNA to the cell's DNA, which allows HIV interference in the host's DNA and use of cells to create new viruses, which are then transferred to the testicle cellular [5,11,14]. The transmission routes of the infection are well-known, and the most modern treatment is introduced, however, HIV is still spreading and is one of the major epidemiological problems in the modern world. Data from 2015 estimate that there are approximately 40 million HIV infected people in the world, including 19 million women and 2 million children. The most serious epidemiological situation occurs in Africa (sub-Saharan Africa), where up to 25% of the adult population is infected with HIV. In Poland, by 2016, over 21,000 registered cases of HIV infection, however, the actual cases may be around 30-40 thousand. [6].

In recent years, a continuous increase in HIV infection has been observed, with concurrent fall of cases and deaths on AIDS, thanks to the introduction of the latest anti-retroviral therapies.

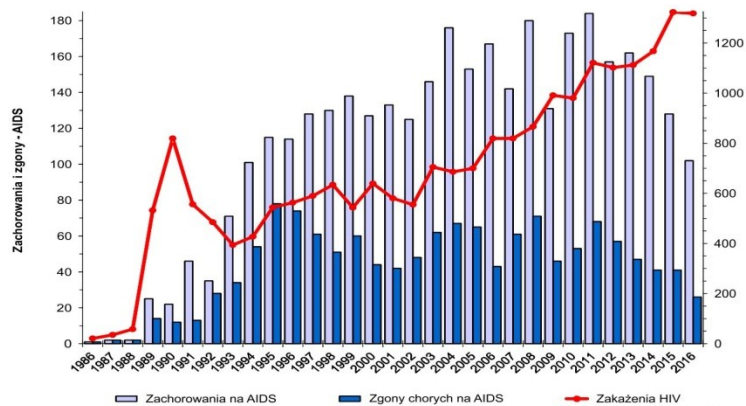


Fig.1. Infections of HIV, AIDS and deaths of AIDS patients in 1986-2016 [7]

Goal

The aim of the work was to get to know the state of blood donors' knowledge about HIV infection and to determine whether there is a need to conduct training in this subject. The research was carried out among blood donors of the Regional Center for Blood Donation and Blood Treatment in Bydgoszcz, from November 2018. until February 2019. Questionnaire survey, charts are developed by the authors of the study.

Method and selection of the sample and characteristics of the respondent

The quantitative method was used for research, while the sociological questionnaire was used as a research tool. The questionnaire contained 26 questions and a questionnaire with 6 questions. Most of the questions were single-choice, and in several questions the respondents could give more than one answer. The respondents' answers were developed using a spreadsheet of the Microsoft Excel computer program and presented in a descriptive, statistical and figure form. The basic issue was the verification of knowledge of blood donors about HIV / AIDS. The second important reason for the research was to determine the need to conduct training on the above-mentioned phenomenon.

The research was carried out among blood donors of the Regional Center for Blood Donation and Blood Treatment. During the pilot study, 10 questionnaires were carried out. This research allowed us to confirm the usefulness of the research tool and allowed for the continuation of the study. A total of 100 blood donors were involved in the pilot study. 74 men and 26 women participated in the study. Taking into account the place of residence of the respondents, there were more residents of the city (53%), while the residents of the village were (47%). The highest number of respondents had higher education (38%) and the least-tertiary education (16%).

Results

Over half of the respondents (67%) indicated the correct meaning of HIV abbreviation as a "human immunodeficiency virus". Responders were confused by the HIV virus with the influenza virus or HPV virus.

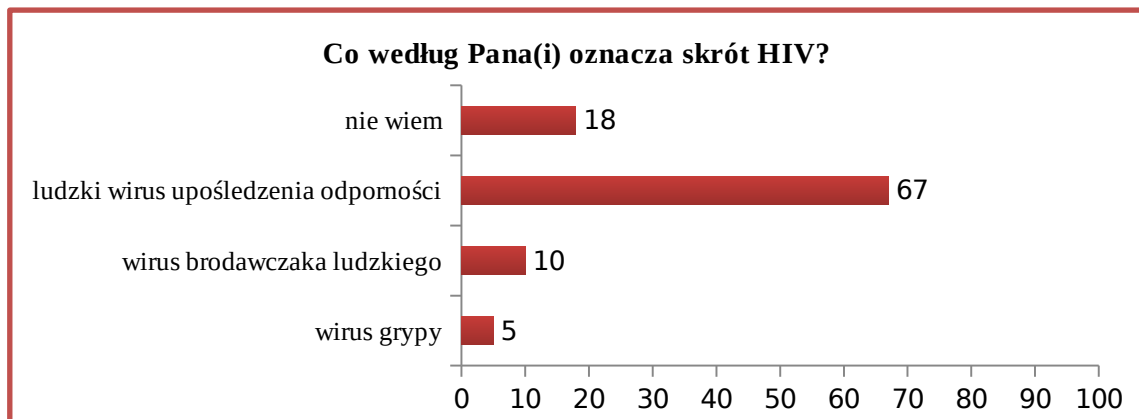
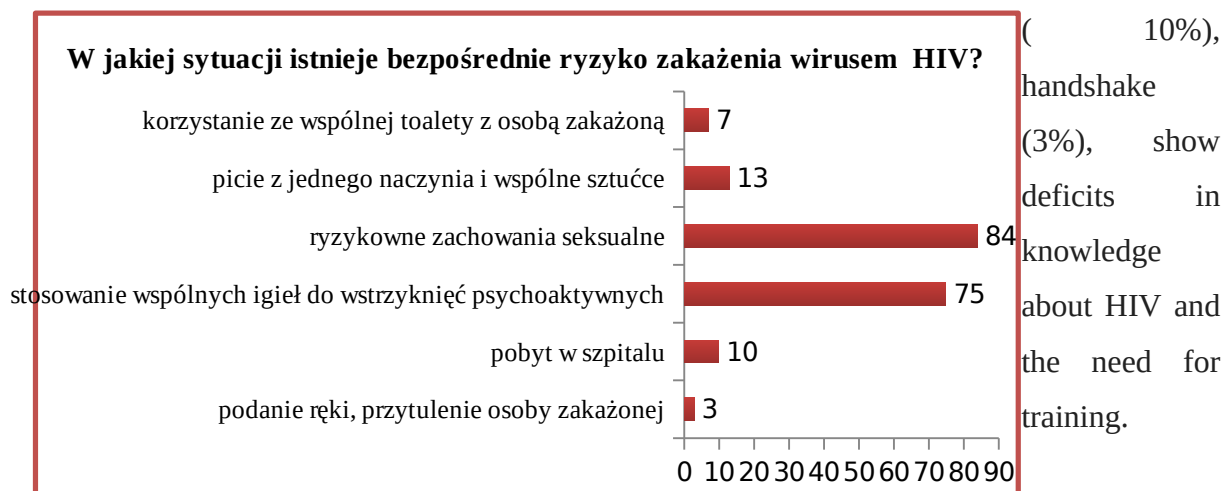


Fig. 2.

Answering a question about knowledge about the importance of HIV abbreviation.

Respondents as the direct risk of HIV infection subsequently mentioned: risky sexual behavior (84%), use of common needles (75%), use of a shared toilet (17%), use of the same cutlery or mugs (13%), stay in a hospital



(10%), handshake (3%), show deficits in knowledge about HIV and the need for training.

Fig. 2. Answer the question about the immediate risk of HIV infection.

Unfortunately, most of the respondents indicated that AIDS is not a treatable disease (74%), there is no knowledge in this area (13%), and that AIDS is a treatable disease indicated 13% of respondents. Participants in the blood donor study listed the following routes of infection: blood (92%), sexual contact (86%), saliva (37%), digestive (7%), droplet (5%), sweat (2%), and touch, while ignorance of the routes of infection was demonstrated by (1%) of respondents. The most important methods of preventing HIV infection were correctly mentioned by the respondents, namely: avoidance of intravenous drug use and risky sexual behavior (53%), social actions to make the society aware (22%), while further respondents' answers showed deficits in knowledge about the possibilities of preventing HIV infection, as as many as 19% of the study participants mentioned avoiding contact with the infected person (19%), while no knowledge on this topic (6%) of the donors surveyed blood. The next question was whether people participating in the study would participate in professional training on HIV / AIDS.

The analysis of these studies shows that those who are not young are very important. It is worth remembering that training should already be available at primary education level. The form of the message and means should be to the group of recipients. Model 3 of health education - health-oriented health education is the most appropriate from the point of view of implementing the idea of health promotion, useful from the point of view of the effectiveness of lasting impact in the sphere of behavior change [2,13,17]. It is a health-oriented model understood in the holistic biopsychosocial approach. The guiding principle of this model is that people from particular environments and social groups should participate in defining their own health problems, take part in the identification of factors affecting their health and health behavior and influence the shaping and implementation of activities aimed at improving the health of their own community. In this approach, health education is not about diseases and risk factors, but about people and places. The main effort focuses on building and implementing comprehensive health education programs targeted at key social and environmental health environments such as the school's environment and workplace [13,17].

Discussing the results

Analyzing the literature, we see that HIV infection is one of the global health problems. In Poland, about one thousand infections are reported annually. It worries that every fifth infected person can not explain and give a potential source of infection. Until 1985, the main sources of information were sexual contacts, blood transfusions and blood derivatives as well as organ transplants, people addicted to intravenous drugs. After the introduction of anti-HIV and HIV RNA tests, transfusion infection has become almost impossible. It is 0.3%. A frequent change of sexual partners also carries an increased risk of HIV transmission, a statistically easier infection with a man per woman than the other way round. Infection in children is the transmission of the virus from mother to child during pregnancy, delivery and breastfeeding [9].

A study by Szymusiak et al. [16] indicates that respondents as the route of HIV infection most often give - sexual contacts over 90% and intravenous drug intake over 80% of respondents. These results correspond to our own research results, in which donors blood 92% blood and sexual contact 86% as a road and a situation that could carry the risk of infection. Analyzing own research in the question about the importance of HIV abbreviation, less than 70% of respondents correctly indicated that it is human immunodeficiency virus, also studies by Szymusiak et al. [16] showed a very good knowledge of HIV abbreviation, because over 80% of respondents indicated a correct answer. However, it is worth noting the fact that blood donors know about the potential of infection, both repeated and single-time, where 19% of respondents indicate the possibility of being infected by contact with the HIV carrier. At the same time, all authors are aware of continuous training in HIV / AIDS, with particular attention to the way of infection. Such a scale of the phenomenon in this respect should be a contribution to the implementation of numerous educational campaigns on the etiology of HIV. According to Wolfgang Thiel, we expect from this medical potential client first of all information, explanations and help in the orientation of this or that disease, its course and possibilities of treatment and prevention. Medical staff who meet these expectations by lecturing, seminars, writing articles. It should be remembered that the invaluable associates of "medics" are people, their friends, families who learn to "live with illness". Provide knowledge that allows you to deal with the disease. Multisectoral cooperation with the condition of success of any program to improve health protection [3,14, 17].

Conclusions

1. Surveyed donor of blood to a person between 18 and 45 years of age, having higher or secondary education and being professionally active.

2. In the group of respondents dominated by multiple donors (63%), the lists of HIV abbreviation at the level of 67%.
3. Respondents about behaviors that generate an indirect risk of HIV infection,
4. The donated blood donors do not have sufficient knowledge about methods of preventing potential HIV infection.
5. Respondents do not have sufficient knowledge about the scale of HIV / AIDS incidence in Poland.
6. On the part of the education sector, a formula and informal training on behavior and loss of health from an early age should be created.
7. In the field of data protection of economic activity with various functions of social life, enabling shaping of conditions and attitude.

Abstract

The phenomenon of HIV in older age is not only medical but also social. Due to the path of infection, everyone can come for us soon. HIV is currently being recorded in the world. The transmission of people about the lack of danger and the non-characteristic symptoms of infection or their absence, causes that many people are not upset.

Knowledge about the situation in which they will be considered to interact with other amounts of infections.

The aim of the work was to get acquainted with information about what is happening with HIV about HIV infection.

The study included 100 people, 37 of whom donated blood for the first time, and 63 subjects to the donor multiple. As a research tool with a sociological questionnaire.

Integrated system of managing copyright and legal regulations. Multisectoral cooperation with the condition of success of any health improvement program.

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