

Evaluation of the effect of AIDS education program on Awareness, attitude and practice of Divers in Tehran

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ABSTRACT

AIDS is one of the epidemic diseases around the world and in the developing countries in particular. To define the pattern of transmission of AIDS in Tehran province this research was done on divers traveling regularly between Tehran and overseas. This research is a Quasi-Experimental study carried out with 130 participants. Questionnaires were used as the data collection tool. Questionnaires were completed to assess the knowledge, attitude and practice of the divers about AIDS. Then training programs including the educational materials, lectures, face to face discussions, and educational films were presented. Knowledge, attitude and practice of the divers were evaluated for the second time two months after the educational programs. The data were analyzed according to suitable statistical methods. 21% of divers had history of sexual intercourse while residing in abroad; and our health educational programs promoted knowledge (27.74 vs. 36.33), attitude (29.45 vs. 42.48) and practice (23.91 vs. 30.45) significantly. Use different educational methods for improvement of knowledge, attitude, and practice of divers (as a high risk group) have to be considered seriously and by health managers.

KEYWORDS: Health education, AIDS, diver, knowledge, attitude, practice

INTRODUCTION

AIDS is the greatest infectious disease and fourth cause of death in the world. This disease is of the main factors that preclude societies from development and involves most of the active and generating population in the society (1). New cases of affliction to AIDS in 2004 AD are 4.9 million individuals and rate of mortality is reported 3.1 million individuals. According to the predictions of WHO the rate of AIDS virus inflection in Iran will reach at 10% until 2020. Iran is one of high risk countries about inflection to AIDS virus. In Iran until the beginning of January 2006 people diagnosed to HIV were 11930 individuals (3) in Tehran Province they were 372 individuals (4,5).

The dominant pattern of AIDS separation in the north of the country is by blood and infectious products and in the southern part of Iran is it through intercourse (6), in Tehran it is reported to be through injection and drug abuse and sexual intercourse (7). Lack of knowledge and considering good hygiene behaviors in every society is inevitable (8), and people in societies to understand and acting correct patterns of life, preservation of health and avoiding diseases need educating appropriate hygiene behaviors, as studies shows workers of Tehran Divers who have foreign travel are vulnerable to infection to AIDS (9), and because one of the main reasons infection of Tehran is repetitive travels to other countries it is necessary that divers have information about ways of infection to AIDS to safe themselves and partners from affliction to AIDS during the travel and after it. Accordingly this study aimed at determining the effect of prevention programs from AIDS on knowledge, attitude, and practice of Tehran divers.

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METHODOLOGY

In this quasi-experimental study the entire divers of Tehran (150 individuals) are population of this study. The entire populations were selected by census and 20 individuals were removed from the study because of their absence. Tools of data collection are questionnaire that contains four parts of social individual characteristics, knowledge questions, attitude and practice. Reliability of the content and form was approved by 10 professors of health education, statistics and experts of infectious diseases of medical sciences in Teheran University, and stability was done in two stages by 7 day interval to 10 divers and correlative coefficient of the two tests was $r=0.86$. After approving reliability and stability of the questionnaire the educational needs of participants were determined and educational contents were specified. The content of educational program contains general issues about AIDS, epidemiology of this disease in the world and Iran, and ways of separation and prevention.

The educational programs were offered in groups each one 10 to 12 individual inside a lineage by speech and question and answer sessions that were face to face plus showing educational films. The time of education for each group was 5 day and 2 hours a day. The content of education was in local language (Balochi). To continue educational programs the educational film changed to CD and was given to them to use them during travel. Also with cooperation of health center of Tehran they were given condom. Two month after educational interference the questionnaire was offered to them again.

Scores of knowledge and practice of divers were classified in 4 levels of weak (0-25), average (26-50), good (51-75), and excellent (76-100). Also scores of attitude at three negative levels (0-33), no idea (34-67), and positive (67-100) were classified. Data were analyzed using SPSS software by descriptive statistics (frequency distribution tables) and inferential statistics (correlative coefficient and couple t-test).

Findings

Result showed that average age of individuals are 38.47, and 47.7% were illiterate and 100% had education lower than high school. 32% had lower than 5 years diving experience and averagely 5.98 times a year they had travel out of the country. Average time of travel for most of the individuals was between 21 to 30 days. Findings showed that most frequency of scores of knowledge before and after education is 54.6% and 43.9% respectively and most frequency is the practice score before and after interference that is 69.2% and 46.9% respectively at the weak level. Also the most frequency was for attitude scores before educational interference that is 66.9% negative and after educational interference 43.9% no idea (table number 1 to 3).

Knowledge	After		Before	
	Frequency	Percentage	Frequency	Percentage
Weak	71	54.62	57	43.84
Average	39	30.00	31	23.85
Good	20	15.38	31	23.85
Excellent	0	0.00	11	8.46
Sum	130	100.00	130	100.00

Table 2: frequency distribution for scores of attitude in research units before and after educational interference

Knowledge	After		Before	
	Frequency	Percentage	Frequency	Percentage
Negative	78	66.92	51	39.23
No idea	36	27.70	57	43.85
Positive	7	5.38	22	16.92
Sum	130	100.00	130	100.00

Table 3: frequency distribution scores for practice in studied units before and after educational interference

Knowledge	After		Before	
	Frequency	Percentage	Frequency	Percentage
Weak	90	69.23	61	46.92
Average	21	16.16	55	42.31
Good	19	14.61	4	3.08
Excellent	0	0.00	10	7.69
Sum	130	100.00	130	100.00

Results shows that between average scores of knowledge before (27.74 \pm 6.42) with average scores after (36.33 \pm 4.21) of interference there is a significant difference ($t=6.96$, $p=0.001$) and also between average of attitude scores before (29.45 \pm 7.54) with average scores after (42.48 \pm 4.13) of interference there is significant statistical difference ($t=8.33$, $p=0.001$) and also between average scores of practice before (23.91 \pm 3.67) with average scores after (1.98 \pm 30.45) from interference there is statistical significance difference ($t=6.16$, $p=0.001$). There was significant statistical relationship between knowledge-attitude ($r=0.86$, $p=0.001$) knowledge-practice ($r=0.61$, $p=0.001$) and attitude-practice ($r=0.56$, $p=0.001$).

The impact of standardized knowledge, attitude and practice is 0.61, 0.73, and 0.54 respectively. Findings showed that 21% of studied individuals had sexual intercourse with foreign people during travel. From these people 94.6% while contact because of lack of access to condom did not use condom and also 92.3% didn't asked about AIDS from their sexual partners. In this research there was no statistical significant relationship between personal and social variables (age, level of education, marital status, diving experience, number of travels a year, duration of each travel) with knowledge, attitude, and practice.

DISCUSSION

Results of this research show that knowledge of most of the studied people before and after educational programs is from weak level to average, but after educational program the level of knowledge increased. A study in this respect represents the fact that about half of (43.5) of passengers have average knowledge about preventing AIDS and this knowledge has significant relationship to features like age, gender, education, job, destination continent, number of information resources and number of traveling times (6). In another study knowledge of research units before education were respectively 25.6%, 44.1%, and 29.5% and after education they were respectively 21.1%, 36.5%, and 42.4% in the levels of weak, average, and good (11) that are similar to the results of this research.

In this study the significant statistical differences in knowledge was obvious before and after educational program that represents the impact of educational programs. In this respect Rose, Saleh et al, Jin et al, Louis et al, Kuchaki, Tajernia, Saleki and Massodi did studies that are in line with the results of this study and to some extent there are statistical significant differences before and after knowledge and health education has been influential in promoting the level of individuals knowledge (6, 11-16).

Results of this study show that attitude of most of the research units before educational program has been negative and after it there was no idea, so that in the entire levels of attitude it is improved. In this respect Sefidgaran writes that attitude before education is 30.6%, 45.9% and 23.5% respectively and after education it was 35.9%, 33.5% and 30.6% respectively at the levels of weak, average and good (10). Results of the studies of Shamandi shows that attitude of individuals about preventing AIDS has been average (17). Findings of this study show that there is a significant statistical difference between attitude before and after educational program. Result of studies of some researchers is similar to this study and some other studies are different. In the study by Tochinda in Thailand significant statistical differences in attitude of individuals was not observed (18). But result of studies of Fool, Ezedin Ichi, Mostafai khamami, and Karimi showed significant statistical difference in attitude of testing group (19-22).

Therefore we conclude that short time educational program can improve the attitude. In other words, educational program is influential in providing positive attitude in individuals. Findings of this study showed that more practice of research units before and after educational program is at a weak level, but after educational program in frequency of the entire levels the practice changes from weak to excellent. Findings of some researchers are similar to results of this study and differ from other results.

Ashrafi Zadeh states that practice of people about preventing AIDS was weak (23). Though studies of Botes and Jarogazanan has not shown changing in the behavior of studied individuals (24,25), but in the studies by Harvi, Grinested, Razaghi and Hatami there is a significant statistical difference between practice before and after education. In other words, educational programs were influential in appropriate practice of studied individuals (26-29) and are similar to the results of this study. Findings show that individuals who had sexual relationship with foreign people in travels because of lack of possibilities didn't use condom and asked no question about condom from their sexual partners. In this respect JTFlo et al, reported using condom in prostitutes 19-22% inspite of good knowledge about AIDS and 56.6% before sex questioned about AIDS from their partners (30). Study of An, Kuji Yo A and Ajon A Jai shows similar results. In this research 41% of navies did not used condom while having sex with prostitutes (9). Findings show significant statistical relationship between knowledge, attitude, and practice. In this regard Abdolahi, et al states that practice is influenced by knowledge and attitude and may not be in line with

them. Therefore, results are justifiable (31). The size of standardized knowledge, attitude, and practice represents influence of educational programs at average level. In this respect Larson et al reported using condom after educational program from 11 to 75% that represent the effect of short time educational programs on people practice and it is similar to the results of this study (32).

As the practice of studied units is measured using questionnaire it is probable to show real practice of units and have lower generalization of results. Based on the results of this study offering preventing educations from AIDS before issuing diving card is necessary with aids of health ministry and shipment organizations, applying preventing AIDS programs for sailors, offering educational programs appropriate with cultural and ethnic patterns and ... by media such as radio and television and visioning stations and consultant centers in the entire centers of shipment.

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