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The Effects of a Psychoeducation Program for HIV/AIDS on the Attitudes of Adolescents Towards HIV/AIDS, Who Have Just Started University Education in Turkey

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Abstract: The aim of this study was to analyze empirically the effects of a HIV/AIDS psychoeducation program, developed for university students, on the realization of student attitudes towards HIV/AIDS and changing of their attitudes in a positive direction by the same. The study was conducted on the students who have started Hacettepe University in Turkey in the study year. Experimental group was composed of 21 and the control group was composed of 23 students. HIV/AIDS Attitude Inventory (HAAI) was used as the assessment instrument in the scope of the study to determine the effectiveness of the Psychoeducation Program on HIV/AIDS. Findings revealed that a significant increase was observed in the attitude scores of the experimental group after the experiment and said increase was maintained in the follow-up tests. This result shows that Psychoeducation Program on HIV/AIDS is effective in changing the HIV/AIDS attitudes of students who have just started university.

Key words: HIV/AIDS · HIV/AIDS psychoeducation program · HIV/AIDS Attitude Inventory · attitude toward HIV/AIDS

INTRODUCTION

As a developing country, Turkey continues to exert efforts with her new regulations and investments in social and economic areas with the aim of inclusion into developed countries. In such process when efforts are exerted to turn into a developed country, the need for specialized workforce increases day by day. In addition to their function of training specialized workforce, higher education institutions make contributions in the increasing of developmental level of countries by undertaking the duty of educating young people equipped with high cognitive and psycho-social potentials.

In indiscriminate societies where everybody is provided with equal rights, people have hope for their future and are more efficient in their works. It is a widely known fact that in general, underdeveloped countries have low educational levels besides being quite behind developed countries in terms of economic development. As the educational level lowers, people's ability to think in a flexible and critical manner declines while their conservatism increases. Gender, color and religious discrimination is more frequently observed in underdeveloped countries.

In recent years, discrimination against patients with HIV/AIDS has been a frequently encountered phenomenon in various countries. What lie behind this discrimination is of course the negative attitudes based on lack of information. People have limited knowledge about sexually transmitted diseases and HIV/AIDS in Turkey, which is included in developing countries. This fact results in the emergence of negative discrimination in Turkey against people with HIV/AIDS. There are 2544 people living with HIV/AIDS in Turkey today [1]. When the ways of infection were examined it was determined that 8% (207 people) were infected with HIV from homosexual/bisexual sexual intercourse, 53% (1343 people) from heterosexual sexual intercourse, and 2% (120 people) from intravenous drug use. There is a rapid increase in the number of HIV cases. Rapid urbanization in Turkey, the high number of people working abroad, rapidly developing tourism sector and the increase in the intravenous drug use are listed as the main reasons of the increase in HIV cases [2-4].

Turkey has a young population with half of the population under 25 years of age [4, 5]. Thus, it is thought to be important to direct the HIV/AIDS preventive activities in Turkey mainly to the adolescent and the young. When we examine the HIV/AIDS

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preventive activities in Turkey, we see that these are quite limited. Many of these activities are the studies aimed at providing information on HIV/AIDS and conducted on small sampling groups [6-9]. Of course informing people about HIV/AIDS is the basic element of HIV/AIDS preventive activities, however, as emphasized in many other researches, only informing can not lead to an attitude and behavior change in people [10-20]. Even if people are informed about the transmission ways of HIV/AIDS and safe sexual behaviors aimed at protecting themselves, it is inevitable that HIV/AIDS will spread exponentially unless people put this knowledge into practice.

Adolescence stage -in which biological system changes take place till 16-18 ages and cognitive, moral and psycho-social maturation takes place till the middle of 20's- is accepted as the most risky stage in terms of HIV/AIDS due to the rapid occurrence of sexual development as well [9, 19, 21-25]. Students in the first years of the university are at the last adolescence stage. Students have relatively insufficient information particularly about sexuality and HIV/AIDS in the first year in the university when compared with the following years and they have higher risk of tend to show unsafe sexual behaviors in this period [9, 26]. This fact reveals the importance of giving widespread sexual health education and implementing HIV&AIDS preventive programs for university students. On the other hand, it is though that implementation of the programs aimed at changing attitudes towards HIV/AIDS in Higher Education Institutions will facilitate realization of general prejudice and irrational opinions of the students by the same, which is expected to make contributions to wide-spreading of flexible thinking among the young and lessening of discrimination.

This study aimed at making students who have just started university realize their attitudes towards HIV/AIDS and change their knowledge, attitudes and behaviors in a positive direction. By this way, it will be easier for the young to protect themselves from HIV/AIDS and sexually transmitted diseases. The study was conducted in Hacettepe University, one of the most prestigious universities of Turkey, located in the capital city Ankara.

MATERIALS AND METHODS

Subjects: Subjects of the study were composed of undergraduate students between 17-20 ages from preparation class of Hacettepe University at Turkey. Totally 44 students -control and experimental group- with mean age 18.7 participated in the study. Experimental group was composed of 10 female and 11 male students (mean age 18.8) and control group was composed of 10 female and 13 male students (mean age 18.6).

Psychoeducation Program on HIV/AIDS: Psychoeducation Program on HIV/AIDS is a structured group study which is developed by Zeren in 2006 to be presented during preventive guidance and counseling studies in higher education institutions and it aims at developing awareness in terms of people's attitudes towards HIV/AIDS and people with AIDS and informing people about safe sexual intercourse [27]. The Cognitive-Behavioral Theory and The Social Cognitive Theory were the foundation for the development of the Psychoeducation Program on HIV/AIDS. In addition the Health Belief Model [16, 28], Theory of Reasoned Action/Theory of Planned Behavior [28], and The AIDS Risk Reduction Model [16] were examined and used in the preparation of the Psychoeducation Program on HIV/AIDS. However no one model was used in its entirety in the program. The content of the program includes the issues such as information on HIV/AIDS; sexuality; values and attitudes about sexuality; safe sexual intercourse; condom use; the effects of the friends; and the behaviors of making choices, taking decisions, saying "no" and taking risks in the issues related with sexuality. In addition to interactive informing of the students during the program course, an interactive learning and self-knowledge environment is provided to students whose interaction is ensured by experiences such as watching recorded videos, role-playing, discussion and group games.

Psychoeducation Program on HIV/AIDS is composed of eight sessions. It was implemented in nearly ninety-minute sessions once a week. Minimum eight maximum fourteen students might attend to Psychoeducation Program on HIV/AIDS due to the structure of the game activities performed during the program. For this reason, program was conducted in two trial groups Summary information about the content of these sessions is as follows:

- Introduction; explanation of the program objectives; setting of group rules
- Attracting the attention of the group to real stories of people with HIV/AIDS by using the news published in the newspapers; giving information on the transmission/protection ways of/from HIV/AIDS; completion of the missing information via a quiz show.

- Revealing the strict attitudes of the society towards homosexuality and HIV/AIDS by watching a film on the experiences of a person with AIDS and by discussing the film; discussion of "how would you feel if you/your brother or sister were in the shoes of the person with AIDS?" to provide assistance in feeling empathy for the people with HIV/AIDS.
- Assistance in making subjects realize their stereotypes via taking roles in pre-prepared games.
- Studies on risky and safe sexual behaviors.
- Focusing on the behaviors of decision making, choice making and saying "no".
- Meaning of safe sexual intercourse, use of condom and the importance of safe sexual intercourse.
- Encouraging students to form small groups so as to produce a work together on the basis of what has been learned during the program; and finalization of the program.

Instrument: The HIV/AIDS Attitude Inventory (HAAI) was used to asses attitude levels of the students in the study.

HIV/AIDS Attitude Inventory (HAAI): HAAI which is a 19-item Likert type instrument was developed by Zeren in 2006 to measure the attitudes of Turkish adolescents and the young towards HIV/AIDS [27]. The highest possible score from the inventory is 76 and the lowest is 19. A low score from the scale indicates that the individual has negative attitudes towards HIV/AIDS and a high score indicated that the individual has positive attitudes towards HIV/AIDS. HAAI has tree dimensions; namely (1) Abstention from People with HIV/AIDS, (2) Sexual Stereotypes and (3) Taking Sexual Risk.

Factor analysis made supported three dimensional structure. Cronbach-alpha coefficients of the 1st, 2nd and 3rd sub-dimensions of HATE were 0.74, 0.70 and 0.72, respectively. Cronbach alpha reliability coefficient corresponding to the whole instrument was calculated to be 0.79. Testing-retesting reliability coefficients were found to be 0.77, 0.80 and 0.73 for the 1st, 2nd and 3rd sub-dimensions, respectively.

Procedure: Initially 52 volunteer students applied for the study and pre-interviews were made with these students. 29 students for whom have a common time and hour could be set were included in the experimental group, considering the possible subject losses during the program course. The control group was consisted of 23 students for whom not to have a common free time.

On the experimental basis, two groups, one composed of fifteen and the other of fourteen people, were formed from these students on the basis of the dates and hours they could participate in the study. Then the study commenced. However, 8 students had to quit the program due to reasons such as schedule changes and the Psychoeducation Program on HIV/AIDS was completed with 21 people (5 males and 7 females in first, 5 males and 4 females in second trial groups). The mean age for experimental group was 21 and control group was 21.2 years. The intervention leader in both trial groups was the first researcher of this study.

The students in the control group were informed that they were in waiting list and they were going to fill in an instrument as a three times during the semester. Students in the control group were given pre-test, post-test and follow-up test in the same weeks with the experimental group. No activity was performed with the control group.

To test the effectiveness of the Psychoeducation Program on the attitudes towards HIV/AIDS, HAAI was applied to both experimental and control groups for three times, as "pre-test" before the program commenced, as "post-test" after the program ended and as "follow-up test" eight weeks after the end of the program.

Analysis of Data: To investigate the appropriateness of the parametric statistics methods in the data analysis, homogeneity of the group variances was tested with Levene test and it was concluded that variance homogeneity was ensured. For binary combinations of measurement sets, equality of group covariances was tested by using Box-M statistics. As a result of the Box-M test conducted, M statistics was found to be 4.177 and probability value for this statistics was found to be p=0.763. Said probability value obtained showed that group covariances were equal for the binary combinations of measurement sets.

After deciding that parametric analysis method was appropriate, two way variance analyses was made for 2 x 3 mixed measurements by using the data obtained from the study.

RESULTS

Information on the means and standard deviations of the HAAI scores regarding pre-test, pos-test and follow-up test taken by the experimental and control group students is given in Table 1.

Table 1: Mean scores and standart deviations of HIV/AIDS attitude scores of trial and control groups

Groups	n	M	SD
Experimental group			
Pre-test	21	64.66	9.19
Post-test	21	71.05	3.06
Follow-up	21	72.09	3.54
Control group			
Pre-test	22	60.09	9.80
Post-test	22	61.22	10.04
Follow-up	22	61.17	10.06

Table 2: Summary ANOVA for HIV/AIDS attitude scores of trial and control groups

Source	df	MS	F	p
Groups (Trial and control)	1	398.04	18.36	0.00
Measure (Pre-post-follow-up tests)	2	237.73	13.28	0.00
Group xMeasure	2	126.19	7.05	0.00
Eror	42			
Total	84			

Table 3: Result of post hoc t tests for group comparison

Pair groups comparison	t	df	p
Trial Gr. PreTest -Cont. Gr. Pre-Test	1.58	42	0.12
Trial Gr. Post-Test - Cont. Gr. Post-Test	4.21	42	0.00
Trial Gr. Follow.Test - Cont. Gr Follow.test	4.72	42	0.00

As can be seen in Table 1, there are differences between the pre-test, post-test and follow-up test scores of experimental and control group students. Results of 2 (group) x 3 (measurement) two way variance analysis-made to determine whether the post/pre program changes observed in the attitudes of the students to have participated in the program and of the nonparticipating students were statistically meaningful- are given in Table 2.

As can be seen in Table 2, basic effects of group (experimental, control) and measurement (pre-test, post-test and follow-up test) and "group X measurement" interaction were found to be significant in terms of the HIV/AIDS attitude scores of the students.

Taking as basis that "Group x Measurement" interaction was significant, post-hoc t test was employed on data for independent groups so as to detect the mean scores contributing to this effect and between mean scores of which groups there were differences. Results obtained are listed in Table 3.

As seen in Table 3, while no significant difference was investigated between the pre-test scores of experimental group and control group students, a significant difference was found between post-test and follow-up test scores of these two groups.

Comparisons made on the basis of the lowest significance level showed that mean attitude scores of the experimental group in the last test were higher than those of control group (t_{42}=4.21; p<0.00). In the comparison made on the basis of the subsequent lowest significance level, it was concluded that mean scores of follow-up test of experimental group was higher than the mean scores of control group (t_{42}=4.72; p<0.01).

As a result, findings obtained showed that there was no significant difference between the pre-test attitude scores of both groups; however, following experimental procedure, mean attitude scores of the group subjected to psychoeducation showed a significant increase and said increase was maintained during the follow-up tests.

DISCUSSION AND CONCLUSION

Study findings revealed that the scores of HIV/AIDS attitudes of the experimental group students who have participated in the Psychoeducation Program on HIV/AIDS significantly changed in the positive direction after the program when compared with control group and that said difference was maintained during follow-up test. It was found out in the scope of this study that psychoeducation programs on HIV/AIDS can change the attitudes of adolescents in a positive direction. This conclusion is parallel with a part of the similar studies conducted [15, 29-35] while it conflicts with some others of these studies [36, 37]. When we take into consideration that it is difficult and time taking to change the attitudes, it is thought that more study findings are needed to reveal the effects of psychoeducation programs on the attitudes towards HIV/AIDS. On the other hand, in a country like Turkey which has high young population and conditions appropriate for the spreading of HIV/AIDS, it is satisfactory to see that a program developed for HIV/AIDS is proved to be effective. Conducting of similar preventive studies in other developing countries is deemed to be an important step in decreasing the spreading speed of HIV/AIDS.

There has been quite limited work towards preventing HIV/AIDS in Turkey. The majority of this has unfortunately involved giving a few hours of information given in a classroom setting. There is a need for programs on the prevention of HIV/AIDS beginning in primary school and continuing through all levels of education. From this viewpoint it is hoped that the Psychoeducation Program on HIV/AIDS used in

this research will serve as a guide. It is suggested that similar programs would be beneficial for use in all schools beginning with primary school for the prevention of HIV/AIDS.

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