The Effect of Education about Addiction through Health Belief Model (HBM) on Knowledge and Perceptions of High School Students in Shadegan

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ABSTRACT

Adolescence due to rapid changes in the physical, psychological, social, cultural, and many of the factors threatening the health and risky behavior by adolescents in the same age is associated with a progressive. Adolescent health risk behaviors and negative consequences it could be a serious threat to health throughout life. One way to reduce this social disease, use of health psychology. Given the role of Knowledge promotion and change perceptions behavior is, the aim of this study was to investigate the effectiveness of education based on health belief model and life skills for increasing self-awareness boy’s high school students to prevent substance abuse. In this semi-experimental study with before and after design from all public boys high school 350 were selected through multistage random sampling. The sample randomly divided to 175 cases and 175 control group. Pre/post test data were analyzed to evaluate the impact of the educational program. Data were gathered using a self-report questionnaire containing questions about. The teaching methods were power point presentation, use of video films, short answer questions and pamphlets. Data analyses by SPSS 17. Our findings showed, that there were significant differences between the scores of knowledge and health belief model components before and after training (P <0.05). Overall, findings of the current study supported that implementing drug abuse educational program preventative program among high school students would be effective to drug abuse prevention.

1. Introduction

Addiction among the adolescents is a psychological, biological and social phenomena and as a major challenge today because of the associated with health risk behaviors such injuries, diseases, AIDS, hepatitis, tuberculosis, etc. (1). Nowadays, on study of the etiology of addiction, unlike the traditional approach, considers a combination of factors which affect the incidence that(2). Complications of addiction, not only individual effect, rather effect on the family, the community and others people (3). Survey carried out about addiction, have been reported various factors such as depression, separation of parents, smoking, academic failure, and ... of tendency the drug abuse (4). According to police and health ministry statistics almost 1.5 and 3.7 million drug consumer there was in Iran, respectively (5). Nevertheless, onset age of substance abuse was a 16-14 year and adolescents and young was a most at risk group for addiction(6). As well as, drug abuse, was known an important factor in self-injury behavior (7). According to the United Nations Office on Drugs and Crime in 2004, the number of drug users in the world at 185 million people is estimated; and 18-25 years old was a
most engaged age group and also 12-17 years group was a second engaged age group for drug abuse (8, 9). Prevention is the best solution for addiction combating (10). Promotion of knowledge, attitude, and belief was a beset approach to drug control and prevention of injuries, therefore of psychological theories in this field is very effective (11-13). For reducing and change these behavior or enhancing protective behaviors is necessary to understand the factors that cause them; in this regard health belief model (HBM) used for analyses of behavior (14, 15, 39-42). HBM states that people’s health-related behavior is based on their perceived susceptibility (refers to one’s perception of the risk or the chances of contracting a health disease or condition), perceived severity (a person’s perception of the seriousness of the consequences of contracting a disease), perceived benefit (One’s belief in the efficacy of the advised action to reduce risk or seriousness of impact), perceived barrier (One’s opinion of the tangible and psychological costs of the advised action), cues to action (Strategies to activate "readiness"), and self-efficacy (Confidence in one’s ability to take action) (15). Several studies have reported research’s based on HBM variables’ effectiveness to substance abuse prevention among adolescents (17, 18). The purpose of this study was to investigate the effectiveness of education intervention based on health belief model and life skills for increasing self-awareness and attitudes among the boy’s high school students to prevent substance abuse.

2. Methods:

This study was conducted among male high school students in Shadegan, is a county in Khuzestan Province in Iran. Eleven high school randomly selected within all high school in Shadegan, Iran. 350 male high school students participated in this study. 175 participants as intervention and 175 as control groups were enrolled at the baseline survey, of who all were followed up after 2 month intervention. This study was conducted with approval from Tehran University of Medical Sciences’ institutional review board. Informed assent and consent were obtained from participants. Prior to conducting the main project a pilot study was carried out. Initially, the relevant questionnaires were administered to male high school students who were similar to participants in the main study to obtain feedback about the clarity, length comprehensiveness, time of completion, and also internal reliability of the measures. Moreover, participants were instructed about how to fill questioners before gathering information. Participants responded to the standard writing self-report questionnaire. Questionnaire included four sections that comprised of 123 questions: ten questions for demographic features; twenty-nine for knowledge, thirty-six for attitude, and 48 questions for HBM variable. The course included twenty-one session teaching (60 min each). The intervention aimed to provide participants with refusal skills against drug abuse. In addition, printed leaflet to remind presentations provided of intervention participants. Analyses were conducted by using SPSS-17 and a probability level of 0.05 was used throughout. Mann-Whitney test, Fisher’ Exact test, and t-test were employed to determine comparability of the intervention and control group.

3. Result:

Table 1 shows demographic characteristics of the participants and analysis revealed that there were not significant differences between two Intervention and control groups before implementation of educational program.

Table 1. Pretest Equivalency results for Intervention and Control groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention n (%)</th>
<th>Control n (%)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-17</td>
<td>123 (70.3 %)</td>
<td>107 (61.1 %)</td>
<td>0.07</td>
</tr>
<tr>
<td>18-19</td>
<td>47 (26.9 %)</td>
<td>60 (34.3 %)</td>
<td></td>
</tr>
<tr>
<td>20-21</td>
<td>5 (2.9 %)</td>
<td>8 (4.6 %)</td>
<td></td>
</tr>
<tr>
<td>Mother Educational level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>87 (50 %)</td>
<td>87 (50.3 %)</td>
<td>0.4</td>
</tr>
<tr>
<td>Elementary</td>
<td>66 (37.9 %)</td>
<td>50 (28.9 %)</td>
<td></td>
</tr>
<tr>
<td>Guidance</td>
<td>13 (7.5 %)</td>
<td>17 (9.8 %)</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>6 (3.4 %)</td>
<td>11 (6.4 %)</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>2 (1.1 %)</td>
<td>8 (4.6 %)</td>
<td></td>
</tr>
<tr>
<td>Father Educational level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>42 (25.3 %)</td>
<td>43 (25.9 %)</td>
<td>0.2</td>
</tr>
<tr>
<td>Elementary</td>
<td>69 (41.6 %)</td>
<td>49 (29.5 %)</td>
<td></td>
</tr>
<tr>
<td>Guidance</td>
<td>19 (11.4 %)</td>
<td>20 (18.1 %)</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>23 (13.9 %)</td>
<td>25 (15.1 %)</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>13 (7.8 %)</td>
<td>19 (11.4 %)</td>
<td></td>
</tr>
<tr>
<td>Parents’ Divorce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>6 (3.4 %)</td>
<td>1 (0.6 %)</td>
<td>0.61</td>
</tr>
<tr>
<td>No</td>
<td>169 (96.6 %)</td>
<td>Table 2 9.4 %</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 indicates that there are significant improvements in average response for independent HBM variables among students who were under intervention.

Table 2: Average responses for knowledge, and health belief model variables before and after educational program

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Intervention group</th>
<th>Control group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before intervention mean (±SD)</td>
<td>After intervention mean (±SD)</td>
<td>Before intervention mean (±SD)</td>
</tr>
<tr>
<td>Knowledge</td>
<td>16.17 (6.14)</td>
<td>22.14 (6.28)</td>
<td>18.30 (6.23)</td>
</tr>
<tr>
<td>Perceived Benefit</td>
<td>34.30 (6.10)</td>
<td>32.37 (6.75)</td>
<td>33.92 (7.11)</td>
</tr>
<tr>
<td>Perceived Barrier</td>
<td>28.13 (5.76)</td>
<td>24.88 (5.57)</td>
<td>30.01 (6.49)</td>
</tr>
<tr>
<td>Susceptibility</td>
<td>33.67 (7.02)</td>
<td>34.03 (7.33)</td>
<td>31.63 (6.42)</td>
</tr>
<tr>
<td>Severity</td>
<td>32.48 (5.69)</td>
<td>29.86 (4.29)</td>
<td>31.63 (6.42)</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>60.79 (19.37)</td>
<td>73.30 (14.41)</td>
<td>61.06 (14.92)</td>
</tr>
</tbody>
</table>

In addition, opium and hashish, respectively the most known substance among the participants. Furthermore, participants have reported relieve discomfort and pleasure the most reason among them for substance abuse.

4. Discussion:

Our results showed, relieve discomfort and pleasure the most reason among them for substance abuse; this findings is similar to the results reported by other studies (20, 22). Based on our findings that improving knowledge about side effects of drug abuse after education among intervention group. This findings is similar to the results reported by other studies (20, 24). In this regards, Allahverdipour et al declared that knowledge about side effects of drugs and improving resistance skills can protect adolescents against drug abuse (18); in addition Jalilian et al, in their study reported educational program can positive effect on increasing knowledge about side effect on anabolic steroid use among the adolescents and young gym user (19). Another findings of present study, increasing of perceived benefit and reduce barrier to preventive behavior among the intervention group after educational program. Most important perceptions in this context, was prevention of addiction as a value for teenagers, less expensive and better prevention than the treatment. Botvine et al, in their study's reported successful approaches in the prevention, are a first, the school based, and attention to social - psychological factors in substance abuse (25). Furthermore, other studies have also stated that health education can increase the perceived benefits of health behavior (19). Consistent with our findings, Rakhshani et al, reported educational program based on health belief model could be effectiveness on preventive smoking behavior among the high school students (26). Also, Sharifi-rad et al, carried out study among students in Bukan County, west Azerbaijan province, Iran and reported education intervention can be reduce to perceived barrier toward smoking preventive behavior (27). These studies indicated that training program can adjust the barriers that impede the adoption of health behaviors.

Previous studies (28-36) reported a significant relationship between high level of perceived susceptibility and perceived severity and reduce high risk behavior. Our findings indicated that improve perceived susceptibility and perceived severity among participants, and these outcomes is consistent with similar studies (20, 30). In this regard, Austin noted, the low perceived susceptibility is one of most important barrier health behavior, which that will be evaluated with training (29).

Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach aims (15). Our findings showed that education program could improve average response for participants’ self-efficacy. In this regard, Morovat Sharifabadr et al, reported their sense of high efficiency leads to better behavioral control (37). Similar to our findings, Rakhshani et al and Ramezankhani et al, reported training program can be increasing self-efficacy (25, 38).

5. Conclusion:

Educational program based on health belief model through its impact on the awareness and perceptions and ultimately to the adoption of preventive behaviors toward the prevention of adolescent substance abuse as one of the pillars of a healthy life style. Overall, findings of the current study supported that implementing drug abuse educational program preventative program among high school students would be
effective to drug abuse prevention. In addition, considering that the few research was done based on health belief model for educational intervention to prevent drug abuse we suggested the designing, implementing and evaluation educational program for drug abuse prevention among adolescents by using health belief model.

ACKNOWLEDGEMENTS
This research was supported by the Tehran University of Medical Sciences. We would like to thank Deputy of Research of Tehran University of Medical Sciences for financial support of this study; and Authors would like to express their appreciation to the students and school workers in Shadegan who participated in this study.

Conflict of interest statement
The authors declare that they have no conflict of interest.

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