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The Effectiveness of a Computer Program to Create Khat Risks' Awareness among Teenage Girls in Jazan Region

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ABSTRACT

A Systematic random sample of (30) intermediate school subjects aged (12-14) was chosen. The study conducted in the academic year 2016. An educational film designed by the researchers was used. Pre- and post-tests were used for collecting data. The film contained information, pictures, and movies regarding comprehensive khat knowledge. Twenty items questionnaire before and after the film show, with the same set of questions were used. The questionnaire consists of 20 questions. Q (1-17) answered by either "true" or "false" whereas Q (18-20) are multiple-choice questions. The data analyzed with SPSS personal computer program. Appropriate statistics for description (frequencies, percent, means, standard deviations, and t-test) were used. The results showed that t-test value for the pre-test is smaller than the level of significance Alpha. Thus, the null hypothesis (H0) rejected. Rejection of the null hypothesis indicates that the difference is significant in favor of the post-test.

Keywords : A Computer Program, Khat Risk, Khat Awareness, Teenage Girls, Jazan Region

I. INTRODUCTION

Catha edulis is a flowering tree that is frequently cultivated in East Africa and the Arabian Peninsula (Hassan, N., et al. 2007, p707). Catha edulis, commonly called Arabian tea, (USDA GRIN, 2010), is known by a variety of names, such as khat and gat in Yemen, qaat and jaad in Somalia, and chat in Ethiopia. Among communities from these areas, khat chewing has a long history as a social custom, dating back thousands of years (Khat Chewing, 2011). The leaves of khat plant contain alkaloids structurally related to amphetamine. Fresh Khat leaves chewed, or, dried and consumed as tea, by a high proportion of the adult population, in order to achieve a state of euphoria and stimulation (Hassan, op. cit.). Khat chewing has spread widely in Jazan Region. It threatens the health of the population.

Khat trees are planted in the plains and in the mountains except for coastal areas with high temperature, or the tops of mountains which are, very cold. Khat trees do not require large amounts of water, like other trees, some of which is sufficient seasonal rainfall. Khat tree is evergreen throughout the seasons of the year and it requires less care than required by fruit trees and other plants (Cox, G., 2003, p93).

Cathinone believed to be the main active ingredient in fresh Khat leaves is structurally related and pharmacologically similar to amphetamine. The habit of Khat chewing is widespread with a deep-

rooted socio-cultural tradition in Yemen and as such poses a public health problem (Kalix, P., 1990, p399). Khat can induce manic behaviors and hyperactivity similar in effect to those produced by amphetamine (Khatresearch.org, 2010).

Before Saudi Arabia had issued legal legislation, which prohibits the cultivation and use of Khat in Saudi Arabia, Khat was grown in the southwestern highlands bordering Yemen, especially the mountains of FIFA and Rith (Mohamed Hussein, 2007, p20).

The Saudi government has meted out severe punishments and penalty to users and smugglers. In Jazan region, which shares a border with Yemen, khat has been cultivated for centuries and its use is still widespread in the city of Jazan and the surrounding rural areas (Hussein M., 2008, p5).

II. METHODS AND MATERIAL

Sample and Data Collection

The study population was teenage girls in Jazan region. A systematic random sample of (30) subjects aged (12-14) was chosen.

The main study instrument is the production of a documental film using Movie Maker Film Computer Program. The film contained information, pictures, and movies regarding comprehensive khat knowledge. The participants fill out 20-items in the questionnaire before and after the film show, with the same set of questions, concerning the comprehensive Khat knowledge: Khat literacy, health, sociological and religious risks. The questionnaire administered and collected by the researchers.

The Questionnaire

The questionnaire consists of 20 questions. Q (1-17) answered by either "true" or "false" whereas Q (18-20) are multiple-choice questions. The comprehensive Khat knowledge: Khat literacy (Q 1-3, 5), health (6-11, 16), sociological (12-14, 16-17) and religious (4, 15) risks.

III. RESULTS AND DISCUSSION

Pre-and post-tests data were collected from participants. All participants were filled pre-and post-tests (N=30). Results before and after the film shows were compared for each question and comprehensive khat knowledge. The differences between pre-and post-test results were tested for statistical with SPSS personal computer program. Appropriate statistics for description (frequencies, percent, means, standard deviations, and t-test) were used.

Findings/ Results

Subjects Comprehensive Khat knowledge

Khat literacy

The results indicate that there are significant differences between pre- and post-tests. At pre-test, (40%) of participants had comprehensive knowledge of Khat risks. The differences between pre-test and post-test results in favor of post-test shows the success and impact of the computer program (documentary film) on participants' Khat knowledge.

Table 1. Pre and Post-tests Mean scores

Pre-test Mean	Post-test Mean
11.8	17.8

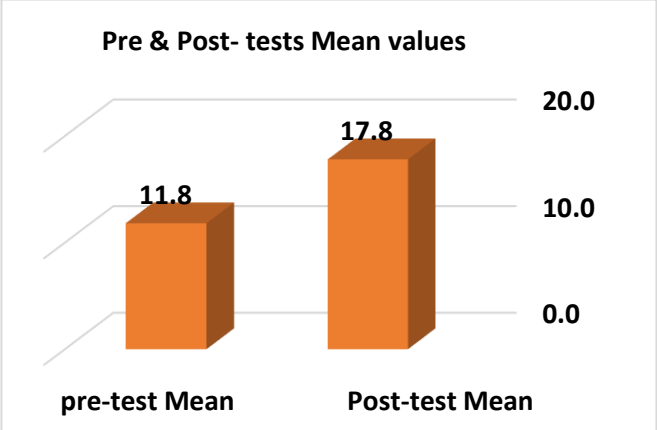

Figure 1. Pre-and Post-tests Mean Scores

The distribution overall mean values were reported to display differences in mean between pre and post-test questionnaire. Table (1) & Figure (1) shows that the post-test mean value (17.8) is higher than the pre-test mean value, which is (11.8). This indicated that participants' scores in post-test were higher than in pre-test.

Table 2. Pre and Post-tests' Std. Deviation

Pre-test Std.	Post-test Std.
2.49689	1.68973

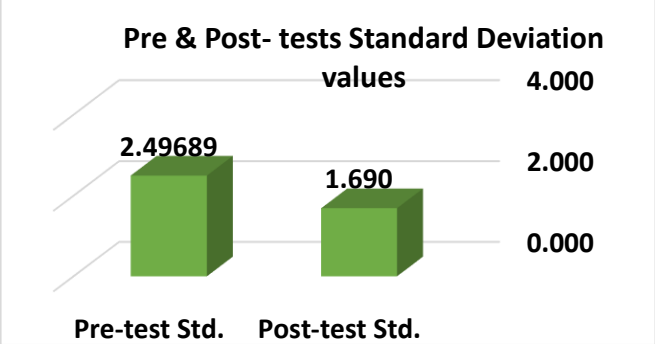

Figure 2. Pre and Post-tests' Std. Deviation

Table (2) & Figure (2) shows differences in standard deviation between pre- and post-tests responds: (2.49) for pre-test and (1.69) for post-test. The post-test std. The value indicated that the data points tend to be very close to the mean, while pre-test value indicated that the data were spread out over a wide range of values.

Table 3. T-calculated and T- table values

t cal	t table
11.33	2.045

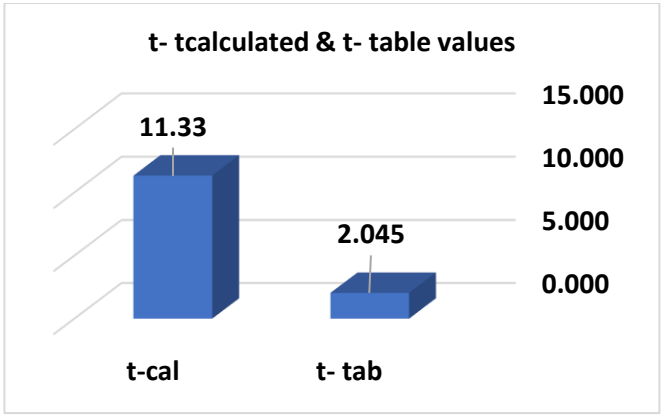

Figure 3. T- calculated and T- table values

Table (3) & Figure (3) shows t-calculated and t-table values; t-calculated value (11.33) while t-table value (α÷2)=(0.05÷2)=(0.025).

t0.025 = 2.045. Since t-cal> t-tab, the null hypothesis was Rejected.

Table 4. Significant (α) level and Significant t level

Sig.α level	Sig. t (2tailed)
0.025	0.000

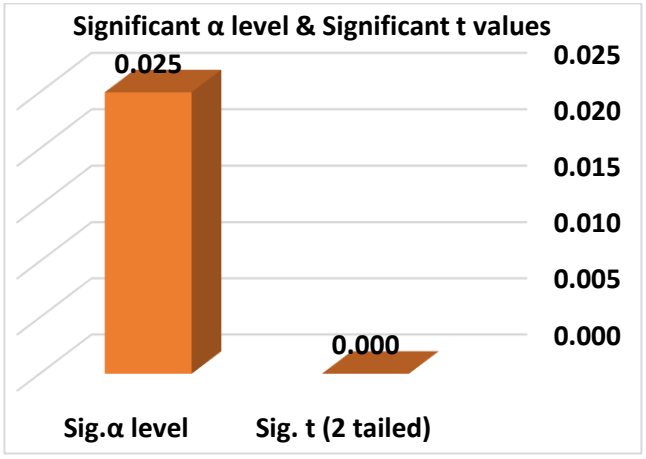

Figure 4. Significant α level and Significant T values

Table (4) & Figure (4) shows Significant α level and Significant t level; Significant t (2-tailed) =(0.000), significant α level (α÷2)=(0.05÷2)=(0.025).

Since Sig. t (0.000)< α level (0.025), the null hypothesis was rejected.

Table 5. 95% Confidence Interval of the difference

Lower	Upper
-7.05312	-4.91688

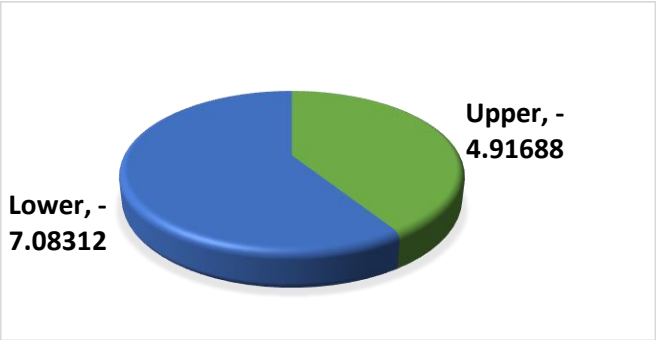

Figure 5. 95% Confidence Interval of the difference

Table (5) & Figure (5) shows 95% Confidence Interval of the differences. Since the lower and upper differences of confidence interval laid in the same zone, then the null hypothesis was rejected

Table 6. The Comprehensive Knowledge Percentage for Pre-& Post-tests

Post-test percentage	Pre-test percentage	Comprehensive Khat Knowledge
100%	40%	khat Literacy
100%	20%	Khat Health risks
100%	35%	Khat Sociological Risks
100%	25%	Khat Religious Risks

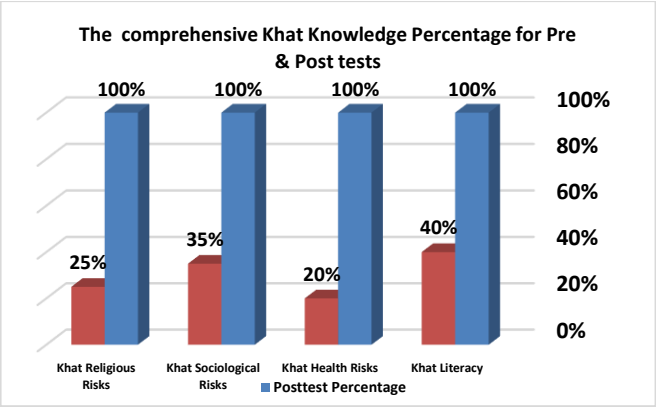

Figure 6. The Comprehensive Knowledge Percentage for Pre-& Post-tests

Table (6) & Figure (6) shows the Comprehensive Knowledge Percentage for Pre-& Post-tests. There are big differences between pre- and post-tests percentage which varies from 20% to 40% in pre-test and raise to 100% in post-test, this result indicated that the film affected positively in creating Khat risk' awareness among the study participants.

IV. CONCLUSION

The null hypothesis was rejected, and the study hypothesis was accepted. This result indicated that the documentary film is effective positively, and successfully in increasing khat risk' awareness among the study participants. The documentary film should apply at all Girls' intermediate school in Jazan Region

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