The effectiveness of a training program based on Infographic technology in the development of drug and psychotropic awareness skills among students' teachers at Prince Sattam Bin Abdul-Aziz University

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ABSTRACT

The aim of the current research is to prepare a training program consisting of six skills (introducing the classification of drugs and psychotropic substances -awareness of the dangers of drugs and psychotropic substances - discussing the causes of drug addiction and psychotropic substances - explaining the manifestations of addiction -presenting the methods of dealing with an addicted or recovering person - introducing the role of the teacher in immunizing his students against the dangers of addiction and psychotropic substances) and aimed to raise the competence of the teacher in introducing the dangers of drugs and their impact on the mind, the program was designed with infographic technology. The research sample was divided into two groups, one experimental, taught using the infographic technology and the other group taught in the traditional way. The results indicated the effectiveness of the program, whether presented with infographic technology or the traditional method, in improving the skills of awareness of the harms of drugs and psychotropic substances in the research sample, and confirmed that the use of modern techniques in training has a great effective effect in enriching the required information.

Keywords

Infographic, drugs, psychotropic substances, training program, students' teachers

Introduction

The phenomenon of the spread of drugs has become required a real confrontation based on scientific foundations, in which education assumes the role of awareness through its institutions and schools, that include the largest number of young men and women, Despite the importance of the school's role in raising awareness of the dangers of drugs and psychotropic substances - which has become a constant increase in the development of the forms of these toxic substances - the programs to prepare the teacher responsible for this awareness have not developed sufficiently, and therefore the teacher preparation programs in the faculties of education, whether at the bachelor's level or in high level studies, should include adequate training in the skills of raising the dangers of drugs and psychotropic substances, by reviewing the courses of the faculties of education at Prince Sattam Bin Abdul-Aziz University for various disciplines, it was found that they have abandoned the scientific content that should be available to the teacher responsible for educating and educating his students. In the current research, a training program is designed with infographic technology aimed at developing the skills of awareness of drug dangers and psychotropic substances and applying it to students of the seventh level in the Department of Home Economics at the Faculty of Education, then measuring its effectiveness in improving the students 'skills in awareness of the dangers of drugs and psychotropic substances. The specialty of home economics was chosen as it is the specialty responsible for the teaching of life skills and family education in general education schools.

From here came the research questions where the following main question:

What is the effectiveness of a training program based on infographic technology in the development of awareness skills for the dangers of drugs and psychotropic substances among the student's teachers at Prince Sattam Bin Abdelaziz University and the following sub-questions are derived from it?

How well are the student teachers at Prince Sattam Bin Abdul-Aziz University being able to raise awareness of the dangers of drugs and psychotropic substances?

What is the image of a program for developing awareness-raising skills on the dangers of drugs and psychotropic substances using infographic technology?

What is the effectiveness of a program for developing awareness of the dangers of narcotic drugs and psychotropic substances using infographic technology?

1.1 Objectives

1. Determining the degree of skills of student's teachers in the faculties of education at Prince Sattam bin Abdul Aziz university in raising awareness of the dangers of drugs and psychotropic substances.
2. Building a training program using infographic technology to develop drug and psychotropic awareness skills for students' teachers (students of faculties of education enrolled in field training).
3. Measuring the effectiveness of the infographic-based training program in developing drug and psychotropic awareness skills

1.2 Research methodology:

The experimental approach is used in this research, which is defined as: "A research method that includes a deliberate and controlled change of the specific conditions of a particular incident while observing the resulting changes, and interpreting those changes (Al-Rashidi, 2000)

1.3 Research hypotheses:

1. There are statistically significant differences between the average scores of the control group students in the attitude test for awareness skills of drug harms and psychotropic substances using infographic technology before and after, in favor of the post test.
2. There are statistically significant differences between the average score of experimental group students in the pre-

and post-drug harm skills parking test in favor of the dimensional test.

3. There are statistically significant differences between the average score of students of the control and experimental groups in the after-application of drug harm awareness skills testing for the benefit of the students of the experimental group.

1.4 The Sample of research

Students of the seventh level in the Department of Home Economics in the Faculty of Education in Dalm - Prince Sattam Bin Abdul-Aziz University and their number was 41 students.

1.5 The importance of research:

The importance of research lies in the following categories:

- First: Sample study: represented by female teachers in the department of home economics in the Faculty of Education in Dalm - Prince Sattam Bin Abdul-Aziz University, where the proposed program completes the program preparing them to teach family education in terms of raising awareness of the dangers of drugs and psychotropic substances, which is a major problem is one of the biggest problems facing the family and society.
- Second: For researchers in the field of teacher preparation:
  - Research is an important experience to include teacher preparation programs for family and community issues.
  - Research is also a modern experience of Infographic technology in teacher preparation programs.
- Third: For those who oversee teacher preparation programs:
  - It highlights the importance of keeping up with the teacher preparation programs with their complementary and sequential systems of important issues affecting society.

- o It also highlights the use of modern techniques not only in teaching methods and strategies, but also in the preparation and training of the teacher.

1.6 The research procedures:

- Firstly: Preparing the theoretical framework by reviewing previous studies and research in relation to both:
  - o Infographic Technology.
  - o Confronting the spread of narcotic drugs and psychotropic substances.
  - o The importance of the teacher preparation program in developing awareness skills of drug dangers and psychotropic substances.

- **Secondly: Research experience:**
  1. Building the content of the program (awareness of the dangers of drugs and psychotropic substances)
  2. Program Arbitration.
  3. Designing the content with Infographic technology
  4. Design a positioning test to determine the extent to which the sample enables risk awareness skills
  5. Drugs and psychotropic substances.
  6. Arbitration and adjust the test.
  7. Applying the Pre-test to the "experimental and control" groups.
  8. Training the two groups on the program, one in the traditional way and the other using Infographic technology.
  9. Applying the post test.
  10. Statistical processing of the results of the application of the test before and after and calculating the effectiveness of the program.
  11. Search results, recommendations, and suggestions.

1.7 Terminology of the study:

- The research uses the following procedural terms:
  - o Training program: a planned, structured, and interrelated process aimed to develop the skills of students who are teachers in teacher preparation programs in the faculties of education in raising awareness of

the dangers of drugs and psychotropic substances.

- o Student teachers: They are students of teacher preparation programs in facilities of education at Prince Sattam bin Abdul-Aziz University who are registered for the eighth level (field training).
- o Infographic: A Technology based on combining words, pictures, drawings, and symbols with the aim of improving comprehension and retaining the necessary information for student teachers to raise awareness of the harms of drugs and psychotropic substances.
- o Drugs and psychotropic substances: any raw or preparation containing stimulants or analgesics that, if used in other than medical and industrial purposes, will lead to a state of habit and addiction to the individual and society physically, psychologically, and socially.

Theoretical framework

1.8.1 Infographic technology:

With the increase in technological innovations in all areas of life, the need to invent new methods and techniques in education has increased, in order to keep pace with the rapid increase in the amount of information and data and attract the attention of students and maintain their focus for long periods, such as infographic technology (which is known as: one of the latest technology of education technology, which plays an active role in simplifying information and facilitating its reading. (Abu Ariban, 2017). The term infographic refers to the conversion of complex data and information into simple, interesting images and drawings that are easy to read and understand. There are two main types of infographic: static infographics, non-animated static graphics, and animated infographics that includes the animation element, whether partial or complete (Darwish, Aldekhini, 2015).

a) The importance of infographic technology in education:

According to (Shaltot. 2014), infographic technology is useful in:

1. Create a new visual format to collect and view information
2. Transfer data in attractive images to the learner.
3. Changes the way you think about complex data and information.
4. Infographic technology helps those in based of the educational process to present the curriculum in a new and interesting way.

b) Explaining the effectiveness of infographic in education:

Scientists at Massachusetts Institute of Technology have discovered that vision is the largest part of brain physiology, and that about 50% of brain power is directed directly or indirectly towards visual function, confirming that the brain's processing of pictorial information is less complicated than its processing of raw texts as the brain deals with images at once while dealing with text in a sequential linear manner. (Abdul Basit, 2014)

This means that students learn and remember what they have learned more efficiently using symbols, visual images and shapes, the infographic is a technique that works on visual processing of information so that it is easy to retrieve in the future. (Dunlap, Lowenthal, .2016)

Many experiments have proven the effectiveness of infographic technology, such as:

- (Al-Barkati, 2018) entitled: "The effect of teaching using an infographic strategy on the achievement and recollection habits of female students studying sports at Um al-Qura University" and the study reached a number of results, including: Teaching using infographic strategy has a positive impact on the development of math And the habits of memorization among female athletes for the benefit of the experimental group , The study

ended with several recommendations, the most important of which are: the use of modern strategies, especially the Infographic technology in the university education courses, especially educational preparation, because it supports the survival of the impact of learning and training female teachers on the design of Infographic.

- (Jaber, 2017) entitled: The effectiveness of a training program based on infographic technology in the development of the skills of preparing the achievement file and the direction towards it among the students teachers in the schools of intellectual education in Al-Ahsa, the study was limited to (10) students teachers enrolled for field training in schools of intellectual education, and ended the research to the effectiveness of the training program, by acquiring the sample of the study a set of skills that help the student teacher to accomplish the tasks required of him and related to preparing the completion file quickly, accurately and masterfully.

- (Tanar Çifçi ,2016): which aimed to identify the effect of infographic technology on students' achievement and their attitudes towards geography, the researcher used the semi-experimental method on a sample of (113) students of the tenth grade and concluded the results of the research to the importance of the use of infographic technology in achievement.

Second: Confronting the spread of drugs and psychotropic substances:

The phenomenon of the spread of drugs at the global and Arab levels is a problem that affects all societies at all levels, as their negative effects on society are reflected in all its social, economic and health aspects, hence the obligation of all institutions of society to address this problem. The preventive role of drugs can be played by many institutions of society, especially educational institutions, which come first from the school which plays an important role in

preparing young people and giving them the desired values and trends and introducing them to the problems that destroy them psychologically and mentally. For the school to play this important role, the teacher must be adequately trained and has the modern knowledge necessary to educate his students about the dangers of drugs and psychotropic substances, which have become in continuous development and diversity and he must use various methods and means to achieve this goal.

- This is what Abdul Hakim confirms (2009, 173): "The school changed its roles from what it used to be to start a new phase that took upon itself, the terrible information revolution to employ it in promoting positive behaviours, exposing negative practices for its students, and ensuring rapid and positive communication between it and the families to reveal negative behaviours. And timely treatment. "

- Al-Khalila (2012) emphasizes the important roles of the school towards confronting the phenomenon of drugs, the most important of which is the need for diversity in learning methods, work to instil and promote religious and moral values, and to activate school roles fully (guidance; school management and school activity).

The following are some of the global experiences in drug prevention provided by the school in all its components (Al-Jahni, 2012):

- The Finnish experience: In which the government introduced programs to prevent delinquency within the curriculum and found various community applications through government institutions and the private sector.

- The Australian experience: which was represented by the establishment of youth clubs within the comprehensive program of the school, which provides for the school's sponsorship and full supervision of these clubs by creating preventive programs and even

producing programs from students 'ideas to clarify the effects of the devastating phenomenon.

- The American experience: The American experience was to start from an educational philosophy based on active learning based on school education from the reality of school curricula and school activities and the involvement of the media in this matter to convey a message to the family explaining the seriousness of the situation and the need to follow up and visit the school, especially in the middle and secondary levels.

In line with global experiences to confront drugs by activating the roles of educational institutions, the study (Amer, 2016) presented a proposed scenario for developing the role of educational institutions in confronting drugs. The results of the study indicated:

- The need to review the curriculum and education to warn of the damage of health and social drugs.
- Preparation of materials and techniques for drug prevention programs.
- Preparing education curricula in accordance with the purposes of Islamic law.
- Include the curriculum in the various stages of warning of drugs and alcohol and showing the wisdom of prohibiting them and explaining their harms to the individual, family, and society.
- Design integrated drug education programs in the curriculum.

From what was previously mentioned, the school can play effective roles in confronting drugs through its curriculum with all its elements. This confirms the role of scientific research in analysing and investigating the school curriculum with all its elements to find out the reality and role of the school curricula in protecting students from the harms of drugs and psychotropic substances and providing them with knowledge, trends, and values to arm and protect them. Among these studies:

- Abu Manka Study (2015) which aimed to identify the role of the curriculum in addressing behavioural problems for high school students in Khartoum-Khartoum state. One of the most important findings of the study, that the most widespread behavioural problems among high school students were the use of tombac, cigarette smoking, and drug use, the study also confirmed that the curriculum can contribute to the treatment of behavioural problems in students by paying attention to the religious aspect, activating purposeful student activity, and preparing specialized educational programs to raise awareness of the dangers of harmful behavior.

- The study (Al-Dakhil, 1438 H) also aimed to identify the modern trends in drug prevention and determine the availability of the provisions for prevention of drug abuse according to recent trends in the Arabic language course (My Beautiful Language) at the primary stage in the Kingdom of Saudi Arabia and determining how to distribute the items of drug abuse prevention to the My Beautiful Language course units in the student's book and the activity book. The descriptive analytical approach (content analysis) was used to achieve the objectives of the study and a set of results were reached, the most important of which was that modern trends in drug prevention are no longer limited to the aspect of awareness and education but go beyond that to address the factors that cause drug abuse and fall under communication skills, thinking, solving problems, effective use of technology and time management.

- Also conducted (Abu Assad, 2018) a study aimed at determining the effectiveness of a proposed unit based on web applications (2.0) in the development of awareness of the harms of drugs in students of the eleventh

grade, the researcher recommended the use of web applications 2.0, which he prepared to develop awareness of the harms of drugs, and emphasize the importance of these applications especially (Facebook) because of its importance and great interaction among learners, especially in the educational process.

- The study (Giffin, 2018) also dealt with the role of student activities in the prevention of psychotropic substances at Prince Sattam bin Abdul-Aziz University, and the study sought to achieve the following objectives: To learn about the reality of student activities at Prince Sattam Bin Abdul-Aziz University, and to learn about the impact of student activities in the prevention of psychotropic substances, the study concluded with a number of recommendations, the most important of which are: the inclusion of all related to the culture of psychotropic substances and their harms in the curriculum, so that students reach sufficient awareness, send staff in educational institutions to training courses periodically to increase their ability and skills in the prevention of psychotropic substances, consolidate the correct Islamic faith and promote sound educational and moral values in the minds of students through Cultural, religious and guiding activities.

Third: The importance of the teacher preparation program in developing awareness-raising skills on drug risks and psychotropic substances:

- (Haqesha et al., 2017) emphasizes that one of the important roles of universities is to raise awareness of the dangers of drugs and psychotropic substances, and that education is the first factor in reducing crime and deviations of all kinds, and Hilal (2009) adds the great importance of the teacher's role in developing awareness of drugs and their dangers to the individual and society by providing

students with information and concepts related to drugs.

Hilal (2009) added that the inclusion of awareness of drug harms within the school curricula has a great impact in confronting it, if it has a share in continuous evaluation, as the school curricula can enrich students' culture with positive ideas about preventive drug education, deepen their concepts and provide them with how to avoid falling in addiction and training them on how to deal with addicts. The school can also develop awareness of the dangers of drugs and its negative effects on the individual and society through the many curricula that contain many educational practices**.**

2: Method

2.1 Program design:

The program is designed to include six modules as follows:

- Program Title: Drug Harm Awareness Development Program
- The general goal of the program: to develop the skills of trainees to identify the types of drugs and psychotropic substances, the factors that lead to their addiction and the manifestations of this addiction and ways to raise awareness of its dangers and the best way to deal with an addicted person.
- Detailed objectives:
  o Learn the concept of drugs and psychotropic substances
  o Discussing the health, psychological, social, and economic risks of narcotic drugs and psychotropic substances
  o Classification of narcotic drugs and psychotropic substances
  o Determining the factors that lead to drug addiction and psychotropic substances
  o Discussing the symptoms of each type of drugs and psychotropic substances
  o Discussing methods of raising awareness of the dangers of narcotic drugs and psychotropic substances

  o The teacher's role in immunizing his students against the dangers of narcotic drugs and psychotropic substances
- Training methods and strategies
  o Discussions
  o Presentations
  o Case studies
  o Interactive lectures
  o Collective and individual training activation strategies
- Methods of evaluating the Training
  o Discussions
  o Parking tests
  o Pre-test and post-test
  o Assignments and collective and individual tasks
- Training methods and techniques
  o Presentations
  o Video
  o Specialized sites
  o Worksheets
  o Forms

Designing the program's units with infographic technology and preparing two copies of the program, one of which is infographic designed and the other without design. Then the two versions of the program (the content – the pre and post-tests - training methods and techniques) were presented to a group of specialists to control and judge it. Revising the two versions of the program in the light of the opinions of the arbitrators and putting it in its final form**.**

2.2 The study Sample

The 41 students in the Department of Home Economics at the Faculty of Education at Prince Sattam Bin Abdul Aziz University.

2.3 Preparing the attitude test

here are several methods available for assessing teaching effectiveness in education. Apart from recent holistic and dynamic approaches to assess teaching effective (Vasilis Grammatik Poulos &other ,2019). However, attitude testing is the most suitable for the subject of research, where it puts the student in a realistic position and tests his ability to act on it.
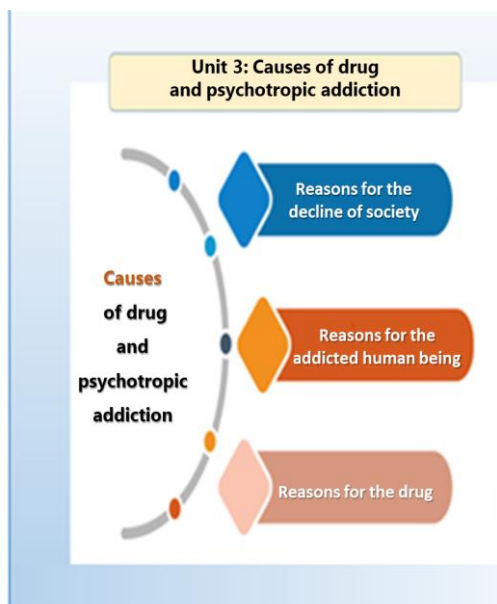
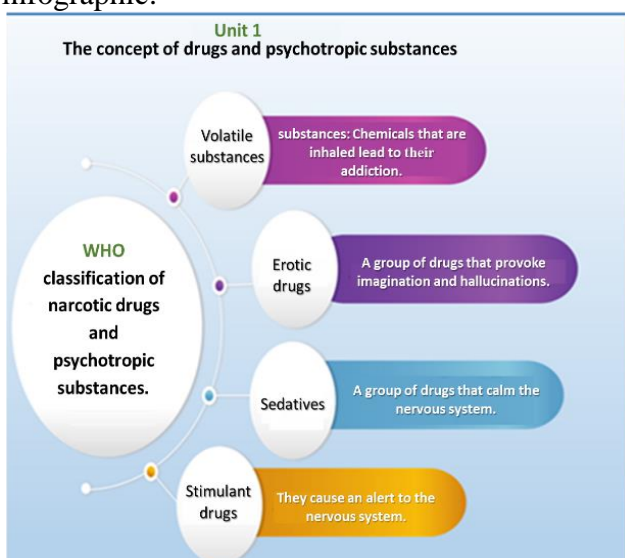**Figure (1)** Shows the Models for some parts of the training program after designing them in infographic.

Figure (2) Shows the Models for some parts of the training program after designing them in infographic.
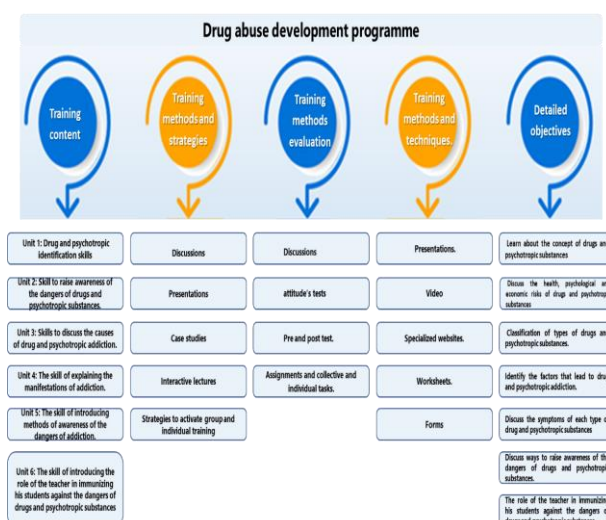

Figure (3) Shows the Models for some parts of the training program after designing them in infographic.

Figure (4) Shows symptoms of addiction

Models for some parts of the training program after designing them in infographic application of the program:

1. Applying the pre-test of attitude to the experimental and control groups.
2. Training the two groups on the program, one in the traditional way and the other using Infographic technology.
3. Applying the post-test of attitude to the experimental and control groups.

3. Results:

To answer the third question, "What is the effectiveness of a program to develop the skills of

drug and psychotropic substances in infographic technology? "

The researcher used the Social Science Statistical Program Package Program (SPSS) to validate the research assumptions as follows:

1   Testing the validity of the first hypothesis, which states that "there are statistically significant differences between the average grades of the students of the control group in the testing of attitudes for drug and psychotropic substance scare skills with the technique of Infographic before and after, in favor of the post-test".

The researcher used the program of the statistical program for social sciences (SPSS)to verify the

validity of the first hypothesis, and the following table shows the results of the attitude test for the skills of awareness of the effects of drugs and psychotropic substances in the infographic technology "t. test" for the averages of tribal and dimensional index scores of the control group and the standard deviation and the value of "T" and the level of indication.

Table (1) Shows the results of the attitude test for drug and psychotropic substance scare meds with t. test for the average scoring scores of tribal and distance indexes for the students of the control group, standard deviation, "T" value and the level of indication.

Testing attitudes for drug and psychotropic harm awareness skills with Infographic Technology	The Average	Standard deviation	Degrees of freedom	T value	Level of significance
The pre-test of the control group	24.92	3.61			
			48	8.1	0.00
The post-test of the control group	32.45	5.40			

The results of the previous table showed an increase in the arithmetic mean in the post measurement of the control group, which reached (32.45), who studied the traditional method, and by calculating the value of "t. Test" for the significance of the differences between the arithmetic averages, it was found that it is statistically significant at a degree of freedom (48) with the level of significance (0.000) This means that there are statistically significant differences between the scores of the attitude test for skills awareness of drug harms and psychotropic substances using infographic technique in the pre and post measurements in favor of the post application, and therefore the hypothesis that states: "There are statistically significant differences between the average scores of the control group students in the attitude test For the skills of awareness of the harms of drugs and

psychotropic substances with infographic technology, before and after, in favor of post-test.

2   Test of the validity of the second hypothesis, which states: "There are statistically significant differences between the mean scores of the experimental group students in the attitudes

3   test for awareness skills of drug harms and psychotropic substances using infographic technology before and after, in favor of the post-test."

The researcher used the Program of the Statistical Program for Social Sciences (SPSS)to verify the validity of the hypothesis, and the following table shows the results of the test positions for the skills of awareness of the effects of drugs and psychotropic substances in the Infographic Technology "t. test" for the averages of pre-test and post-test scores of the experimental group and

the standard deviation and the value of "T" and the level of significance.

Table (2) shows the results of the test of positions for the skills of awareness of the harms of drugs and psychotropic substances with the technique of Infographic "T. test" for the averages of pretest and posttest scores for the students of the experimental group and the standard deviation and the value of "T" and the level of significance.

Testing attitudes for drug and psychotropic harm awareness skills with Infographic Technology	The Average	Standard deviation	Degrees of freedom	T value	Level of significance
The pre-test of the experimental group	25.01	3.54	49	11.1	0.000
The post-test of the experimental group	35.7	4.60			

The results of the previous table showed an increase in the arithmetic mean in the post measurement of the experimental group, which reached (35.7), who studied in the training program based on the infographic, and by calculating the value of "t. Significance (0.000) This means that there are statistically significant differences between the scores of the attitude test for awareness of drug harms and psychotropic substances using infographic technology in the pre and post measurements in favor of the post application. Therefore, the hypothesis that states that "there are statistically significant differences between the average scores of the experimental group students is accepted" In attitude testing for awareness of the harms of drugs and psychotropic substances using infographic technology, pre and post, in favor of the post-test.

4 The third hypothesis test, which states: "There are statistically significant differences between the average scores of the students of the control and experimental groups in the post-application of the cognitive test of the skills of awareness of the harms of drugs and psychotropic substances using infographic technology for the benefit of students of the experimental group."

Where the researcher used the Statistical Package for Social Sciences (SPSS) program to verify the validity of the third hypothesis, and the following table shows the results of the attitude test for awareness skills of drug harms and psychotropic substances using the infographic "t. test" for the mean scores of the post-measurement of the control and experimental groups, the standard deviation and the value of "t the level of significance.

Table (3) shows the results of the attitude test for drug and psychotropic substance scare meds with Infographic "t. test" for the averages of the two-dimension index scores of the experimental groups, standard deviation, "T" value and the level of significance

Testing attitudes for drug harm awareness skills	The Average	Standard deviation	Degrees of freedom	T value	Level of significance
The post test of the control group	32.5	5.40	48	4.23	0.000
The post test of the experimental group	35.7	4.60			

The results of the previous table showed an increase in the arithmetic mean in the post measurement of the experimental group, which

amounted to (35.7), who studied in the training program based on the infographic, and by calculating the value of "t. Significance (0.000) This means that there are statistically significant

differences between the scores of the pre- and post-drug awareness skills test in favor of the post application. Therefore, the hypothesis that states "there are statistically significant differences between the average scores of the control and experimental groups in the post application of the cognitive test of skills is accepted. Awareness of the harm of narcotic drugs and psychotropic substances using infographic technology for the benefit of the experimental group students.

5 The validity test of the fourth hypothesis, which states: "There are no statistically significant differences between the average scores of the students of the control and
experimental groups in the post application of the attitudes test axes of awareness of drug harms and psychotropic substances using infographic technology."

The researcher used the Program of the Statistical Program for Social Sciences (SPSS)to verify the validity of the fourth hypothesis, and the following table shows the results of the test positions for the skills of awareness of the effects of drugs and psychotropic substances in the technique of Infographic "t. test" for the averages of the distance measurement degrees of the control and experimental groups and the standard deviation and the level of indication.

Table (4) shows the result of the arithmetic means and the standard deviation of the post-measurement scores of the attitudes test axes for awareness skills of drug harms and psychotropic substances with infographic technology for the control and experimental groups.

attitude testing axes for drug and psychotropic harm awareness skills with Infographic	Group	N	Arithmetic mean	Standard deviation
The first axis: drug and psychotropic identification skills	Control group	35	2.43	0.78
	Experimental group	35	3.74	0.78
The second axis: skills to identify the dangers of drugs and psychotropic substances	Control group	35	5.31	0.93
	Experimental group	35	6.94	1.41
The third axis: skills to describe the causes of drug and psychotropic addiction	Control group	35	2.83	0.86
	Experimental group	35	4.46	1.07
The fourth axis: skills to identify the manifestations of an addicted person or who is ready for addiction	Control group	35	3	1.63
	Experimental group	35	5.6	1.03
The fifth axis: awareness and treatment skills	Control group	35	3.23	1.14
	Experimental group	35	5.63	1.46

The sixth axis: the skills of dealing with an addicted or recovering person	Control group	35	4.26	1.04
	Experimental group	3 5	6.06	1.16

By extrapolating the previous table, the results of the control group axes, which used the traditional method, show that the second axis: skills to identify the risks of drugs and psychotropic substances from the focus of testing positions for drug and psychotropic skills with Infographic technique, is the highest average in the dimensional application compared to the rest of the results of the students' responses to the axes of the control group, and therefore is the best results of the axis of the control group, which reached (5.31).

The results of the experimental group axes, which used infographic technology, show that the second axis: drug and psychotropic risk identification skills from the focus of testing attitudes for drug and psychotropic substance scare levels with Infographic technology, is the highest average in the dimensional application compared to the rest of the results of students' responses to the control group axes, and therefore is the best results of the control group axes, which reached (6.94).

It is also evident through the extrapolation of the previous table that the highest average in the results of the axes in the post application of the control and experimental groups for all the axes of the attitude test for awareness of drug harms and psychotropic substances using infographic technology came in favor of the results of the responses of the second axis of the experimental group students, which reached (6.94), while it reached the highest As a result of the responses of the control group students 'axes in the results of the second axis responses of the control group students, which reached (5.31), and therefore the highest result of the students' responses to the experimental group compared to the results of the control group's students' responses in the post application is the second axis of the experimental group in which the results of the student's responses in the application are superior. Post-test postures for awareness skills of drug harms and psychotropic substances using infographic technology.

4. Conclusion(s) and Recommendations

4.1 Comment on the results of the study:

- **firstly**: The result of the experiment indicated the effectiveness of the program, whether presented with Infographic technique or the traditional method, in improving the skills of awareness of the harms of drugs and psychotropic substances in female teachers, and this means that these skills are not sufficiently available to them despite the responsibility assigned to them in the future in educating their students, and this confirms the importance of reviewing teacher training programs and including the necessary skills that meet the needs and aspirations of society.

- **Secondly**, the results of the experiment proved that the introduction of the program with Infographic technology achieved more effectiveness than the traditional method, which confirms the effectiveness of the Infographic technique in the development of skills to raise awareness of the harms of drugs and psychotropic substances.

4.2 Recommendations:

- Teacher preparation programs should be reviewed and updated to include important community needs.

- Developing teaching methods and university training in line with the great technological advances in education, and in accordance with the results of studies in the science of education

References (APA 6th edition)

[1] Amer, Tarek Abdel Raouf (2016): The effects of drug use and a proposed vision to develop the role of educational institutions in confronting them. *available at* *https://repository.najah.edu/handle/*

[2] Abdul Hakim, Musa Mubarak (2008): The school and its various roles, Mecca: *Al Faisaliah Library*.

[3] Hilal, Naji Mohammed (2009): Drug addiction scientific and social vision, Cairo: *House of Knowledge*.

[4] Darwish, Amr Mohammed, Al-dkani, Amani Ahmed Mohammed (2015): The pattern of presenting infographics (fixed/motion) through the web and their effect on the development of visual thinking skills in autistic children and their attitudes towards autism, *education technology, M25, P2, Egypt*.

[5] Shaltot, Mohammed (2014): Article "The Art of Infographics House of Thrill and Motivation for Learning", E-*Learning Magazine, Issue (23)*

[6] Abu Ariban, Abeer (2017): "The effectiveness of the use of Infographic technology (fixed-moving) in developing genetic resolution skills in the life sciences of 10th graders in Gaza"

[7] Abdul Basit, Hussein Mohammed Ahmed (2015): The main pillars for activating the use of infographics in the teaching and learning processes, E-*Learning Journal, Cairo University of Mansoura, E-Learning Unit.*

[8] Taner Çifçi (2016): Effects of Infographics on Students Achievement and Attitude towards

[9] Geography Lessons (2016): *Journal of Education and Learning; Vol. 5, No.1,*

[10] Dunlap, Joanna C & Lowenthal, Patrick R. (2016). Getting Graphic about Infographics: Design Lessons Learned from Popular Infographics. *C Journal of Visual Literacy, 35 (1), p42-59*

[11] Grammatikopoulos, V., Gregoriadis, A. and Linardakis, M. (2019), Discrete Choice Modeling in Education: An Innovative Method to Assess Teaching Practices. Educational Measurement: Issues and Practice, *38: 46-54. https://doi.org/10.1111/emip.12255*

[12] van der Lans, R.M., van de Grift, W.J. and van Veen, K. (2015), Developing a Teacher Evaluation Instrument to Provide Formative Feedback Using Student Ratings of Teaching Acts. Educational Measurement: Issues and Practice*, 34: 18-27. https://doi.org/10.1111/emip.12078*