

Effectiveness of an Educational Program on High School Females Students' Knowledge about Coronavirus Disease in Al-Diwanyia City

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ABSTRACT

Objective(s): A quasi-experimental design, using one group, test-retest approach, is employed to determine the effectiveness of education program on high school female students' knowledge about coronavirus disease in Al-Diwanyia City from October 10th 2021 to April 2nd 2022.

Methodology: A non-probability, purposive sample of (30) high school female student, is selected for the purpose of the study. All subjects have signed consent form to present their agreement for participation in the study. The confidentiality of the data is also safeguard and they will be securely maintained during and after conducting the study. An education program and self-report questionnaire are constructed for the purpose of the study through review of related literature. The program is comprised of (4) lectures and the questionnaire is consisted of (2) main parts; the high school female students' demographic characteristics and high school female students' knowledge about coronavirus disease questionnaire. Content validity is determined for the education program and the study instrument through panel of experts and test-retest reliability is obtained for the study instrument in a pilot study. Data are gathered through the use of the study instrument as mean of data collection and analyzed through the application of descriptive statistical data analysis and inferential statistical data analysis approaches.

Results: The study results depict that all high school female students' knowledge about coronavirus disease has been improved as being exposed to the education program.

Conclusion: The study concludes that the education program is confirmed to be an effective mean for improving high school female students' knowledge about coronavirus disease.

Recommendation: The study recommends that the education program can be utilized as an educational mean for enhancing the high school female students' knowledge about coronavirus disease and further and a nation-wide research can be conducted with large sample size and wide-range scale of variables.

Keywords: Evaluation, Knowledge, High school female students, Coronavirus, Disease.

INTRODUCTION

Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It is initially reported to the World Health Organization (WHO) on December 31, 2019. On January 30, 2020, the WHO declares the COVID-19 outbreak a global health emergency. The modern name for the coronavirus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (1).

As of end January 2021, the coronavirus disease 2019 (COVID-19) has infected approximately (100) million people, leading to more than (2) million deaths globally¹. This global pandemic has brought upon unprecedented challenges worldwide. Given the rapid spread of COVID-19, a society's awareness and knowledge of COVID-19, key preventative measures (e.g., wearing masks) and acceptance of new models of care (e.g., video-consultations) is important (2).

Knowledge can moderate the negative effects of pessimistic illness expectations on protective behaviors and promotes protective behaviors by buffering the negative effects of pessimistic illness expectations. Knowledge is important predictor of behaviors that impact on the spread of the disease (3).

METHODOLOGY

A quasi-experimental design, using one group, test-retest approach, is employed to determine the effectiveness of education program on high school female students' knowledge about coronavirus disease in Al-Diwanyia City from October 10th 2021 to April 2nd 2022.

A non-probability, purposive sample of (30) high school female student, is selected for the purpose of the study. All subjects have signed consent form to present their agreement for participation in the study. The confidentiality of the data is also safeguard and they will be securely maintained during and after conducting the study.

An education program and self-report questionnaire are constructed for the purpose of the study through review of related literature. The program is comprised of (4) lectures and the questionnaire is consisted of (2) main parts; the high school female students' demographic characteristics and high school female students' knowledge about coronavirus disease questionnaire. Content validity is determined for the education program and the study instrument through panel of (10) experts and test-retest reliability is obtained for the study instrument as ($r = 0.87$) in a pilot study.

Data are gathered through the use of the study instrument as mean of data collection and analyzed through the application of descriptive statistical data analysis approach of frequency, percent, total scores and ranges and inferential statistical data analysis approach of t-test.

RESULTS

Table 1: Overall Evaluation of the High School Female Students' Knowledge about Coronavirus Disease at Pretest

Poor (33-43)	Fair (44-54)	Good (55-66)
30 (100.0%)	0 (0.0%)	0 (0.0%)

Results, out of this table, reveal that the overall evaluation of high school female students' knowledge about coronavirus disease is poor (100.0%) at the pretest.

Table 2: Overall Evaluation of the High School Female Students' Knowledge about Coronavirus Disease at Posttest I

Poor (33-43)	Fair (44-54)	Good (55-66)
0 (0.0%)	0 (0.0%)	30 (100.0%)

Results, out of this table, reveal that the overall evaluation of high school female students' knowledge about coronavirus disease is good (100%) at posttest I.

Table 3: Overall Evaluation of the High School Female Students' Knowledge about Coronavirus Disease at Posttest II

Poor (33-43)	Fair (44-54)	Good (55-66)
0 (0.0%)	0 (0.0%)	30 (100.0%)

Results, out of this table, reveal that the overall evaluation of high school female students' knowledge about coronavirus disease is good (100.0%).

Table 4: Effectiveness of the Education Program on High School Female Students' Knowledge about Coronavirus Disease a. Pretest and Posttest I

Groups	Mean	Group size	Standard Deviation	t-Test	Degree of Freedom	Significance
Pretest	43.833	30	4.410	-20.763	29	0.000
Posttest I	61.066	30	1.874			

Results, out of this table, reveal that there is no significant difference between high school female students' knowledge about coronavirus disease at pretest and posttest I.

b. Posttest I and Posttest II

Groups	Mean	Group size	Standard Deviation	t-Test	Degree of Freedom	Significance
Posttest I	61.066	30	1.874		29	0.393
Posttest II	61.733	30	1.874	-0.867		

Results, out of this table, reveal that there is no significant difference between high school female students' knowledge about coronavirus disease at posttest I and posttest II.

DISCUSSION

Comparative differences have been applied for the determination of the effectiveness of the education program on high school female students' knowledge about coronavirus disease. Findings out of such comparison reveal that these female students have acquired good level of knowledge post the execution of the program and their knowledge has been dramatically improved two weeks post the implementation of the program. The improvement in their knowledge is obvious in the high men of scores of items of the aspects of their knowledge of knowledge about coronavirus disease, knowledge about signs and symptoms and diagnosis of the infection with corona virus, knowledge about the treatment of the disease and knowledge about the prevention of the disease. Such findings provide confirmation that the education can be employed as educational mean for developing and improving their knowledge about coronavirus disease.

A quasi-experimental study is carried out on (260) secondary school students to determine the impact of teaching program upon their knowledge about COVID-19 in Egypt. The study depicts that there is significant differences relative to students' knowledge between the pre and the post-structured teaching program implementation and the program is determined as an effective mean in improving students' knowledge regarding COVID-19 (4).

Another quasi-experimental study is conducted for the period of October 28th, 2019 to March 30th, 2020. A nonprobability "purposive" sample of (124) male students; (62) students for the control group and (62) students for the study group, aged (14-19) years who are selected for the study. The results reveal that there is a significant difference in students' knowledge between the pre and post-tests knowledge score of the study group (5).

Other quasi-experimental study reveals that there is significant improvement in the knowledge of high school students in the study group as being compared with the control group. The study concludes that the education program is effective in enhancing knowledge of high school students (6).

CONCLUSION

The study concludes that the education program is confirmed to be an effective mean for improving high school female students' knowledge about coronavirus disease.

Recommendations: The study recommends that the education program can be utilized as an educational mean for enhancing the high school female students' knowledge about coronavirus disease and further and a nation-wide research can be conducted with large sample size and wide-range scale of variables.

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