

Effect of AIDS Education Program on nursing students' Knowledge, Attitude and Practice at Faculty of Nursing at Port Said University

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Abstract: Background: AIDS is an international health and fatal drawback. Irrespective of development in diagnosis, prevention and management, HIV/AIDS is closing a critical public health concern.

Aim: to evaluate the effect of AIDS education program on nursing students' knowledge, attitude and practice.

Setting. Studywas conducted at collage of nursing at University of Port Said, through a quasi-experimental research design with pre-post assessment.

Sample. Allstudents in the faculty of nursing (497 students) included in the study.

Tools. Data were obtained througha modified Knowledge, Attitude and Practice (KAP) questionnaire.

Results. All studied nursing students had low level of knowledge, practice and attitude pre-program implementation. A highly statistically significant improvement was detected after the implementation of the program in their knowledge, attitude and practice. There was a statistical significant positive correlation between the studied nursing students' knowledge and practice at $p<0.001$.In addition, there was a statistical significant positive correlation between studied nursing students' total knowledge and attitude at $p=0.004$ While there was no statistically significant correlation between attitude and practice scores. **Conclusion.** Educational program was successful in attaining its aim of positively improving knowledge, attitude and practice of studied nursing students regarding AIDS.

Recommendation. Regular continuous educational program at larger scale should be designed to give information about AIDS for enhancing and reinforcement of studied student nurses' knowledge, practice and attitude.

Key Words: AIDS, Attitude, Health Educational Program, Knowledge, practice.

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I. Introduction

Acquired immunological disorder syndrome (AIDS) is adangerous secondary immunodeficiency disease caused by the retrovirus (Vera, 2013). Human immunodeficiency virus (HIV) attacks the body's system, specifically the CD4 cells (T cells), that facilitate the system oppose infections. Untreated, HIV reduces the amount of CD4 cells (T cells) within the body, creating the person more likely to inducethe alternative infections or infection-related cancers. Over time, HIV will destroy such a large amount of those cells that the body can'trepel infections and malady. These expedient infections or cancers make the most of awfully weak system and signal that the person has AIDS, the last stage of HIV infection (CDC, 2017).

With less than 1% of the population calculable to be positive for HIV, Egyptcould be a lowprevalence country in HIV. However, from 2006 to 2011, rates of HIV prevalence in Egypt raised tenfold (UNICEF Egypt, 2017).The typical range of percentages of HIV in Egypt until 2011 was four hundred annually. In 2012 and 2013 raised to about six hundred new cases, 2014 reached 880 new cases (Dief, 2015).Consistent with2016 statistics of UNAIDS, nearly 11,000 individualsin Egyptpresently living with HIV. Unsafe behaviors of populations at risk and restricted use ofcondom among the overall population place Egypt in a dangerof a widerepidemic (UNAIDS 2016).

Some folks with HIV infection don't have any symptoms till many months or perhaps years when acquiring the virus. However, around 80 % might develop symptoms just like respiratory disorder 2-6 weeks

when catching the virus. This can be known as acute retroviral syndrome. The early symptoms of AIDS infection might involve joint pain, fever, chills, muscle aches, inflammatory disease, night sweats, glands enlargement, a red rash, tiredness, weakness, thrush and unintentional weight loss (Nordqvist, 2018).

A lot of teenagers nowadays are experimenting with sex and sexual practices. It is very important that they be educated concerning the risks related to such behavior. It's solely through awareness and education that we will curb the menace of HIV/AIDS in our society. One cannot assert the importance of such education enough. It's not only teenagers who are sexually active that are the matter. Different aspects like the utilization of sterilized needles, safe blood transfusions, etc. are all topics that require to be tutored (Subramanian, 2013).

Engaging younger individuals could be a defensive to their health and putting the AIDS epidemic as a whole permitting young humans to be meaningfully engaged within the incorporated AIDS programs. Academic institutes are to be command in charge of rising the young people's information, awareness and health practices regarding HIV/AIDS (Idele, Gillespie, Porth, Suzuki, Mahy, Kasedde, & Luo, 2014). Universities have a responsibility to proactively alter a lot of accessible interactions and academic program on HIV/AIDS among young adults who are students that forestall transmission of HIV/AIDS and enable the young adults to stay getting choices in respect to keeping secluded from obtaining infected with HIV/AIDS (Al Mazroa et al, 2012).

Educational guidelines can limit the overall costs of health care through preventing complications of infectious diseases. So the application of health education programs remains the key to AIDS prevention and control. College students represent a dynamic and surprisingly knowledgeable group in the society, and they are anticipated to play an essential role in limiting the spread of HIV/AIDS and promoting the health education about HIV/AIDS in the country (Mohammed, Osman, Mohamed, & Ahmed (2015).

Significance of the study

AIDS is a fatal malady and young adult should be educated relating to HIV infection through broad community participation and university policies and programs of health education to forestall AIDS transmission. University policies development on AIDS education may be a vital beginning in developing AIDS education program. AIDS education schemes ought to be developed to deal with the requirements and the developmental scholars' levels. Education regarding AIDS could also be most acceptable and effective once dole out inside additional comprehensive university health education program that build a foundation for understanding the personal behavior and health relationships.

Moreover, medical and nursing employees are the most vital teams within the hindrance of HIV. Therefore, medical and nursing education should embody updated data on HIV and AIDS-related problems. The information, practices and attitudes of scholars caring for folks with AIDS is so significant, since they are going to be future health professionals.

Aim of study:

To evaluate the effect of AIDS education program on nursing students' knowledge, attitude and practice at faculty of nursing at Port Said University.

Objectives:-

- 1-Detect the existing knowledge, attitude and practice level of nursing students regarding to AIDS.
- 2-Design a health education program for nursing students to improve their knowledge, attitude and practice regarding AIDS.
- 3-Examine the effect of the implemented health education program on knowledge, attitude and practice of the nursing students regarding to AIDS.

Research Hypothesis:

Knowledge and Perception of nursing students attending the health educational program regarding AIDS would be improved.

II. Methods

Design: A quasi-experimental research design with pre-post assessment was utilized.

Setting: This study was carried out at collage of nursing, University of Port Said, Egypt.

Subjects: All nursing students (first, second, third, fourth and partnership grades) were included in the study. Total number was (497) nursing students.

Tools of data collection:-

A quantitative method was employed in current study. The studied sample answered a modified form known as Knowledge, Attitude and Practice (KAP), developed by Huang, Bova, Fennie, Rogers and Williams (2005). Knowledge and practice components was utilized among nursing students in United Republic of

Tanzania (Eriksson & Kopsch, 2008). Attitudes part was used among Swedish nursing students (Ashberg & Sjöblom, 2009).

The form was designed with structured close-ended dichotomous and multiple-choice queries with pre-designed choices, except one open-ended question regarding the respondents' religion. The form was (48 statements) based on 3 main components as knowledge and practices about HIV/AIDS and attitudes towards folks with the un-wellness. Knowledge part enclosed (11 questions/), the second part is practice that involved (10 questions) and the third part was that the attitudes scale and evolved (18 statements).

Scoring system

The knowledge statements about the disease were scored on a three point scale where 2= true, 1= uncertain and 0 = false. The practice questions were on a three point scale where 2=likely, 1=uncertain and 0=unlikely. Attitude items were on a six point scale where 0 is strongly disagree and 5 is a strongly agree. Scores of total items were summed up with total score divided by number of items giving mean score. The total score is converted into a percent score, and means and standard deviations were computed.

Validity

After interpretation of the form to Arabic, content validity of the questionnaires was confirmed by five academic experts from medical- surgical & Family and Community Health Nursing. Based on their recommendation very little modifications were created.

Reliability

Reliability was checked for its internal consistency by using Cronbach Alpha test. The nursing students' knowledge, practice, and attitude questionnaire sheet reliability was found 0.80, 0.76 and 0.82 respectively.

Pilot study

The pilot study executed on 10% of nursing students with a total number of 50 students for clarity, applicability and time consumed. Those who took part in the pilot study were included.

Field Work

Study implemented from November 2018 to January 2019. Through the following two phases; implementation phase and evaluation phase.

Implementation Phase

A. At the beginning interview, the investigator introduces her / himself to electrify the contact, provide a proof for the character and reason behind the study.

B. The form was given to the nursing students within the brainstorming classrooms. The interview consumed from 15-20 to minutes for every student.

C. Educational sessions were held on AIDS transmission, prevention and Health practice by a series of lectures, four hours per week over a period of 5 weeks (20 hours) combined with active involvement of the studied nursing students. Instructional materials used were; a booklet, videotape, PowerPoint displays and group discussion.

3. Evaluation

Posttest was given immediately after an intervention.

III. Administrative Design

Approval to try and do the study was obtained from college of Nursing, Port Said University and also the Vice Dean for Student Affairs. Moral problems were raised by taking verbal consent for participation from each nursing student after explaining the purpose of the study and ensure confidentiality of gathered information.

IV. Ethical Consideration

The aim of the study was explained to every student, and an oral consent for participation within the study was obtained from all of them. All information remained confidential and be anonymous employing a series of analysis codes. All recordings contained corresponding codes were solely celebrated by the researchers. Right to refuse to be within the study and withdrawn at any time is emphasized to students.

V. Statistical Design

Data analyzed using IBM SPSS software package version 20.0. Qualitative data were described using number and percent. Quantitative data were described using range (minimum and maximum), mean and standard deviation. Significance at the 5% level. The tests used were, Chi-square test for categorical variables, Fisher's Exact or Monte-Carl correction: correction for chi-square when more than 20% of the cells have expected count less than 5. Pearson coefficient & T-paired test to correlate between quantitative variables.

VI. Result

Table (1) shows that 61.6% of the studied cases their ages ranged from 16-19 years, 67% were feminine, 27.4% were in the third academic year, and 53.9% of the studied case's families lived in urban area. Moreover, 51.7% of the studied cases were housed on campus during the period of their study. Concerning quality of living condition, 70% of the studied cases reported that their living condition was good. Eventually, the results demonstrated that 71% of the studied cases were single and 96% were Muslims.

Table (2) reveals that 76.5 % of the studied cases told that they haven't participated in AIDS training workshop, and 90.9% did not perform any training workshop about AIDS. Regarding source of information about AIDS, the results elaborated that 24.9 % of the studied cases have received information from the internet.

Table (3) reports that total mean score of knowledge of the studied cases was 8.43 ± 3.56 in the pre-test phase while in the post test was 15.45 ± 3.69 . The table also revealed that total mean score of practice of the studied cases was 5.54 ± 2.68 in the pre-test phase compared to 12.02 ± 3.53 in the post test phase. Regarding total score of attitude, the results demonstrated that the studied cases had 72.06 ± 6.72 in the pre-test phase compared to 96.11 ± 7.91 after program implementation. There was, highly statistical significant differences between pre and post phases concerning total knowledge, practice and attitude scores at $p (<0.001^*)$.

Table (4) adduces correlation coefficient between total knowledge, total practice, and total attitude of the studied cases throughout pre and posttest phases. As elaborated in the table, there was statistical significant correlation between total knowledge and practice of the studied cases where $p < 0.001^*$. Also, there was statistically significant correlation between total knowledge and attitude of the studied cases where $p < 0.004^*$. While there was no statistically significant correlation between total practice and attitude of the studied cases throughout the pre and posttest.

Table (5) puzzles out the relationship between total knowledge of the studied cases and demographics data. As exhibited in the table, there was a statistically significant association between age, academic year, place where family live, place of living and quality of living's place with total knowledge of the studied cases throughout the pre and posttest phases. While there were no statistical significant differences between sex, marital status and religion with total knowledge of the studied cases throughout the pre and posttest phases.

Table (6) elucidates the relation between total practice of the studied cases and demographics data throughout the pre and posttest phases. As described in the table, there was statistical significant association between academic year, place of family living and quality of living place of the studied cases with their total practice throughout the pre and post phases. Furthermore, there was statistical significant association between sex and marital status with total practice during the posttest phase. While there was no statistically significant association between ages, place of living and religion with their total practice throughout the pre and posttest phases.

Table (7) exhibits the relation between total attitude of the studied cases and demographic data. As viewed in the table, there was a statistical significant association between ages and academic year of the studied cases with total attitude scores at both the pre and posttest phases. The table also revealed that there a statistical significant association between place of living and quality of living place with total attitude of the studied cases at post test phase. No other statistically significant association could be detected in this table.

Table (1): Distribution of the studied cases regarding demographics (n = 497)

Demographics data	No.	%
Age (years)		
16 – 19	306	61.6
19 – 22	191	38.4
Sex		
Male	164	33.0
Female	333	67.0
Academic year		
First academic	64	12.9
Second academic	106	21.3
Third academic	136	27.4
Fourth academic	102	20.5
Partnership	89	17.9
Place of family living		
Urban area	268	53.9
Rural area	229	46.1
Area of living		
On campus	257	51.7
in rented house outside campus	176	35.4
with parents	64	12.9
Quality of living accommodation		
Poor	93	18.7
Good	348	70.0
Very good	56	11.3
Marital status		
Single	353	71.0
Married	144	29.0
Religion		
Muslim	477	96.0
Christian	20	4.0

Table (2): Distribution of the studied cases as regards to their clinical training (n = 497)

Clinical training courses	No.	%
Participated in AIDS training workshop		
Yes	117	23.5
No	380	76.5
Participated in youth peer a HIV/AIDS education workshop		
Yes	45	9.1
No	452	90.9
Source of Information about AIDS		
Family	75	15.1
Friends	53	10.7
Relatives	43	8.7
In the class at schools	48	9.7
Doctors and nurses	17	3.4
University health education	5	1.0
T.V	101	20.3
Newspapers and magazines	31	6.2
Internet	124	24.9

Table (3): Distribution of the studied cases according to total score of knowledge, practice and attitude (n=497)

Items	Pre	Post
Total Score of Knowledge		
Min. – Max.	2.0 – 14.0	2.0 – 20.0
Mean ± SD.	8.43 ± 3.56	15.45 ± 3.69
t (p)	26.703* (<0.001*)	
Total Score of practice		
Min. – Max	0.0 – 12.0	5.0 – 18.0
Mean ± SD.	5.54 ± 2.68	12.02 ± 3.53
t (p)	33.191* (<0.001*)	
Total Score of attitude		
Min. – Max	51.0 – 91.0	82.0 – 116.0
Mean ± SD.	72.06 ± 6.72	96.11 ± 7.91
t (p)	61.329* (<0.001*)	

t: Paired t-test; p *: at p ≤ 0.05.

Table (4): Correlation between total knowledge, practice, and attitude of the studied cases. (n=497)

Items	Pre		Post	
	r	p	R	p
Total Knowledge VS total Practice	-0.084	0.061	0.171*	<0.001*
Total Knowledge VS total Attitude	-0.051	0.258	0.130*	0.004*
Total Practice VS total Attitude	0.057	0.249	0.016	0.714

r: Pearson coefficient *: Statistically significant at $p \leq 0.05$

Table (5): Relationship between total knowledge of the studied cases and demographics data (n = 497).

Demographics data	Knowledge	
	Pre Mean ± SD.	Post Mean ± SD.
Age (years)		
16 – 19	34.63 ±14.45	75.73±15.88
19 – 22	44.19±17.03	61.45 ±14.27
t(p)	6.697*(<0.001*)	10.384*(<0.001*)
Sex		
Male	38.75 ±16.02	69.76 ±17.46
Female	38.08 ±16.25	70.48 ±16.46
t(p)	0.430 (0.667)	0.436 (0.663)
Academic year		
First academic	12.36 ±3.38	74.93 ±14.14
Second academic	32.16 ±8.64	83.92 ±5.22
Third academic	47.03 ±3.73	69.72 ±19.14
Fourth academic	39.57 ±20.48	64.26 ±14.40
Excellence	49.49 ±9.56	58.22 ±13.50
F(p)	138.924*(<0.001*)	45.615*(<0.001*)
Place of family living		
Urban area	33.67 ±17.63	72.47 ±15.99
Rural area	43.73 ±12.24	67.63 ±17.33
t(p)	7.472*(<0.001*)	3.220*(0.001*)
Living place		
On campus	45.51 ±9.89	69.31 ±17.57
Living in rented house outside campus	25.70 ±16.49	74.23 ±14.69
Living with parents	44.03 ±14.66	63.0 ±16.19
F(p)	124.430*(<0.001*)	11.811*(<0.001*)
quality of the living place		
Poor	38.42 ±13.04	75.90 ±15.09
Good	39.99 ±15.93	68.23 ±16.95
Very good	27.60 ±18.34	73.30 ±16.03
F(p)	14.993*(<0.001*)	8.995*(<0.001*)
Religion		
Muslim	38.10±16.26	69.90 ±16.77
Christian	43.18 ±13.15	78.41 ±15.32
t(p)	0.748 ^{FE} (p=0.367)	2.542(0.111)

t: Student t-test

F: F for ANOVA test

p: p value for comparing between the studied categories*: Statistically significant at $p \leq 0.05$

Table (6): Relationship between total practice of the studied cases and demographics data (n = 497)

Demographics data	Practice	
	Pre Mean ± SD.	Post Mean ± SD.
Age (years)		
16 – 19	29.05 ±13.47	59.13 ±17.18
19 – 22	25.47 ±12.96	61.68 ±18.26
t(p)	2.925 (0.904)	1.544 (0.123)
Sex		
Male	27.56 ±13.48	62.50 ±19.06
Female	27.73 ±13.35	58.93 ±16.78
t(p)	0.134 (0.893)	2.038* (0.042*)
Academic year		
First academic	29.84±14.99	53.13 ±10.82
Second academic	32.17 ±16.85	51.32 ±9.06
Third academic	26.25±8.29	68.05 ±20.08
Fourth academic	22.16±13.08	56.03 ±14.29
Excellence	29.27±11.79	68.15 ±20.16
F(p)	8.995*(<0.001*)	26.518*(<0.001*)

Place of family living		
Urban area	28.84±14.05	57.11 ±15.59
Rural area	26.31 ±12.44	63.62 ±19.19
t(p)	2.132 (0.034)	4.109* (<0.001*)
Living Place		
On campus	25.43 ±11.31	61.69 ±18.28
Living in rented house outside campus	31.08 ±16.04	58.30 ±16.54
Living with parents	27.34 ±11.02	58.75 ±17.53
F(p)	9.668(0.806)	2.169 (0.115)
quality of living place		
Poor	29.03 ±14.09	53.23 ±11.74
Good	26.77 ±13.01	62.43 ±18.70
Very good	31.07 ±13.97	57.14 ±15.55
F(p)	3.110*(0.045)	11.350* (<0.001*)
Marital status		
Single	27.56 ±13.86	61.43 ±18.12
Married	27.95 ±12.15	56.88±15.96
t(p)	0.309 (0.757)	2.773* (0.006*)
Religion		
Muslim	27.60 ±13.42	60.18 ±17.69
Christian	29.50 ±12.56	58.50 ±16.31
t(p)	0.622 (0.534)	0.417 (0.677)

t: Student t-test F: F for ANOVA test

p: p value for comparing between the categories *: Statistical significant at $p \leq 0.05$

Table (7): Relationship between total attitude of the studied cases and demographics data

(n = 497)

Demographics data	Attitude	
	Pre	Post
	Mean ± SD.	Mean ± SD.
Age (years)		
16 – 19	49.38 ±5.89	72.98 ±7.74
19 – 22	51.13 ±6.60	71.27 ±6.48
t(p)	2.997* (0.003*)	2.663* (0.008*)
Sex		
Male	49.84 ±6.46	72.86 ±7.23
Female	50.16 ±6.12	72.06 ±7.37
t(p)	0.527 (0.598)	1.144 (0.253)
Academic year		
First academic	49.86 ±3.87	71.44 ±7.87
Second academic	52.57 ±5.63	75.51 ±7.68
Third academic	46.68 ±5.61	71.75 ±7.28
Fourth academic	52.16 ±6.53	70.22 ±5.89
Excellence	49.96 ±6.52	72.47 ±6.95
F(p)	19.889* (<0.001*)	7.991* (<0.001*)
Place of family living		
Urban area	50.33 ±6.12	72.80 ±7.62
Rural area	49.74 ±6.35	71.77 ±6.94
t(p)	1.055 (0.292)	1.587 (0.113)
Place of living		
On campus	50.20 ±7.53	72.77 ±7.47
Living in rented house outside campus	49.65 ±4.48	70.99 ±6.79
Living with parents	50.59 ±4.27	74.20 ±7.64
F(p)	0.686 (0.504)	5.629* (0.004*)
quality of living		
Poor	50.23±6.13	74.15 ±9.33
Good	49.97 ±6.46	71.88 ±6.66
Very good	50.28 ±4.81	72.04 ±7.17
F(p)	0.103 (0.902)	3.614* (0.028*)
Marital status		
Single	50.51 ±6.09	72.15 ±7.57
Married	48.95 ±6.43	72.74 ±6.70
t(p)	2.538 (0.711)	0.813 (0.417)
Religion		
Muslim	50.06 ±6.28	72.30 ±7.36
Christian	49.95 ±4.97	72.87 ±6.53
t(p)	0.075 (0.940)	0.340 (0.734)

t: Student t-test F: F for ANOVA test

p: p value for comparing between the studied categories *: Statistically significant at $p \leq 0.05$

VII. Discussion

There are various factors that placed youngsters at an elevated threat of HIV. Adolescence and early adulthood could be a crucial period of development once important physical and emotional changes occur (Ziad et al., 2015). Adolescents and young humans have growing personal autonomy and responsibility for his or her personal health. The transformation from childhood to adulthood is additionally a time for locating and looking for peer relationships, gender norms, sexuality and financial obligation (Bhatta, Aryal and Khanal 2013). So, there's a substantial explanation to incorporate AIDS education as an integral part of colleges program. Academic advisors, physicians and nurses ought to check with students HIV contamination.

In spite of inaccuracy of the media but net and Television were foremost means of getting information about AIDS within current study. Media have done very little to alter cultural values and prejudice regarding sex, also the scenario of individuals who reside with AIDS. However, sensible at educating those that HIV and AIDS exist; primarily in an exceedingly scary manner as a result of they have rarely given enough in-depth information to contextualize this information. Taking everything into consideration, media ought to apply strategies of AIDS education to enhance general information concerning AIDS.

This finding came in agreement with (Taheer & Abdelhai, 2011) who conducted a study about "Effects of a health education intervention on two nursing groups in Cairo University, Egypt", disclosed that T.V was the main source of information among the studied groups.

The present study showed that most of the studied cases had low knowledge within the pre-test section compared to post test and there was extremely statistically significant differences between pre-, and post phases regarding total knowledge score. This could be associated with lack of health education and in-faculty education on topics related to HIV/AIDS and few media have spoken of such a malady. Also, about two thirds of them their ages range between 16 – 19 years old this point to their very little expertise.

These results are in line with Eun-Hyun ; Seong-Mi and Jong-Yun (2010) who study effects of an education program for AIDS prevention on knowledge and attitudes towards AIDS among male high school students in Seoul and Gyeonggi Province, concluded significant differences in knowledge and attitudes between experimental and control studied groups were found. The first cluster showed higher scores in information and a lot of positive attitudes than the control group. The education program led to positive attitudes.

Rai, Adhikari and Bajracharya (2016) who study academic intervention effects on knowledge concerning AIDS among nursing assistant students of Shree Birendra hospital, Kingdom of Nepal ended that that academic intervention has role to extend awareness concerning HIV/AIDS. Moreover, Taheer & Abdelhai (2011) demonstrated that a remarkable improvement within the overall knowledge concerning AIDS in two clusters (underneath graduated and post graduated) after program. Pre- means score was 7.29 and the post- mean score was 8.01. Also, the study conducted by Nanayakkara & Choi (2018) about "Effectiveness of AIDS education program on nursing students AIDS knowledge and attitudes in Sri Lanka", elaborated that statistically significant improvement of AIDS knowledge with p-value <0.001 of post-test results of the study group compared to the control subjects.

The present study results accentuates that about whole of studied cases had unsatisfactory total practice in the pre-test phase while the majority of them had satisfactory total practice in the post test and there was highly statistically significant differences between pre and post phases regarding total practice score. These results may be due to that the majority of them haven't participated in AIDS training workshop and most of them didn't performed training workshop about AID. Also, about half of the studied cases are from rural areas where fields to earn health education are very narrow and rural culture affect educated parents or family to educate their sons regarding sexual diseases.

These results are similar to Ombotto , Nonga , Ntone , Ambassa and Zonk (2016) who study "knowledge, attitude and behavioral practices regarding HIV/AIDS infection and prevention among Rural Students, in Cameroon", concluded that most students have heard about HIV and its transmission, however several students still don't recognize wherever is that the best area to travel for a screening take a look at and treatment, several of them still have interaction in risky sexual behavior as: multiple partner, casual partners, unsafe sex, risky sexual activities. Education needs to be done in rural schools and stress ought to be created on the condom utility throughout intercourse and sex with multiple partners. The attention regarding turning away, testing and treatment regarding AIDS was average, and a lot of data and education have to be done. Health education ought to be done in rural areas.

Concerning to studied cases attitude, most of them had inadequate attitude within the pre-test part whereas the majority of them had satisfactory attitude in the post test. This detected that there was extremely statistically significant variations between pre-, and post test concerning total attitude score. This could be explained that HIV/AIDS patients need to face discrimination in Egypt society and in health-care system.

Results of Jin , Earnshaw , Wickersham , Kamarulzaman , Desai, John & Altice (2014) that performed an assessment of health-care students' attitudes toward patients with or at high risk for HIV: education and cultural competency implications, are in the same line of this study as their result demonstrated that attitudes

differ by demographic characteristics, involving religion and ethnicity, and that personally inform somebody from vulnerable populations considerably rise attitudes toward them. Also, Frain (2018) who carried out a study entitled "Preparing Every Nurse to become an HIV Nurse, USA" found out important positive changes in student's attitudes and information once a minor addition to the syllabus.

Unfortunately, Chendake & Mohite (2013) who assessed the knowledge and attitude of nursing students towards HIV/AIDS declared that nurses attitudes towards individuals living with AIDS have long been scrutinized and studies revealed that some nurses have negative attitudes and are unwilling to provide care to people with HIV/AIDS, leading to decrease quality nursing support. Attitudes of nursing students towards caring for individuals with HIV/AIDS is vital importance, as they become the future practicing nurses.

The current study reveals that statistically significant correlation between total knowledge and practice of the studied cases. Additionally, there was statistical significant correlation between total knowledge and attitude of the studied cases. While there was no statistically significant correlation between total practice and total attitude of the studied cases throughout the pre and posttest phases. From the researcher's point of view as people's knowledge increased their practice and attitude subsequently will be improved.

In contrast, alternative researchers explicit that getting adequate theoretical information and sensible skills is necessary to provide quality care to HIV-infected persons. However, character and attitude that reflect high level of expertise is very important additionally. Information from studies involving student nurses and other profession students indicate that despite showing good knowledge regarding HIV, some students still exhibit misconceptions regarding the malady (Abolfotouh, Al Saleh, Mahfouz, Abolfotouh, & Al Fozan, 2013; Dharmalingam, Poreddi, Gandhi, & Chandra, 2015; Lui, Sarangapany, Begley, Coote, & Kishore, 2014; Ouzouni & Nakakis, 2012). In addition, (Akpotor et al., 2018) in their study " Knowledge about HIV Stigma Mechanism of Nursing Students in Nigeria", adduced that long held wrong beliefs might interfere with knowledge and cause nurses to stigmatize even once there's no basis for that. The misconceptions come in varied forms regarding HIV transmission, treatment and prevention.

The current study findings reveal that a statistical significant association between ages, academic year, and place where family live with total knowledge of the studied cases throughout the pre and posttest phases. This could be attributed to the fact that knowledge and experience of students might be increased and improved through getting older and attaining more information when transit from grade to another. Also, there was relation between knowledge and place where family live which may be related to openness and globalization in urban areas.

Similar finding to this study was Ouzouni and Nakakis (2012) rumored that student nurses in Hellenic Republic who scored high in information concerning HIV were older and feminine. Also, Baytner-zamir et al., (2014) told in their study involving premedical students in Israel that increase in HIV knowledge was associated with higher level of study. Findings of this study were additionally created in Republic of India among dental students (Fotedar et al., 2013), and a study in Republic of Fiji (Lui et al., 2014).

Regarding relation in our study between practice and demographic data there was statistically significant association between sex and place of family living of the studied cases with their total practice throughout the pre and posttests. Furthermore, there statistically significant association between academic years, quality of place where you are living and marital status with total practice of the studied cases throughout the pre and posttest phases. Females demonstrated a higher level of practice in comparison with males; this variation is small and practically insignificant. It was observed that percent of student nurses who are single in comparing to student nurses who are married, this may be related to married student have legal partner and there is no need to receive education related to sexual diseases.

Also, results of current study reveal a statistical significant association between academic year of the studied cases and total attitude scores at both the pre and posttest phases. This finding indicates that knowledge has an effective role on attitude, as knowledge increased attitude become more positive and concepts are changed to the best.

This finding is in agreement with the previous results Rai, Adhikari, Bajracharya (2016) stated that solely two thirds of the studied sample aware that HIV/AIDS could be a preventable malady before educational intervention. It had been seen in posttest that this raised to the majority, this can be a major amendment. There was additionally vital change in data, practice and attitude relating to contributive factors to increasing prevalence of HIV/AIDS in Asian nation.

VIII. Recommendations

In the light of the above studies and our study it is the need of the hour to focus on practicing universal precautions as there is a poor awareness among the nursing students in the profession. Also, some preventive measures could take place by the universities and medical students to avoid the occurrence of these concerns. Students should be well educated about availability of exposure (mode of transmission) prevention more so it should be the responsibility of the nursing college or nursing university to have 24 hour counseling services

available for acquired immune-deficiency disease. Also, a plan of practical education based on the findings, which merit further study with a wider sample of students that would support a more generalized evaluation.

IX. Conclusion

There were significant difference pre and post program implementation which assure an improvement in student nurses' knowledge, practice and attitude post program intervention which meant that the educational program was successful in attaining its aim of positively changing knowledge, attitude and practice of the study cases.

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