

**Perception of Non-Medical Faculties Students at Minia University toward Acquired Immunodeficiency Syndrome**

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Abstract

Background: Acquired Immunodeficiency Syndrome epidemic (AIDS) is one of the most serious public health challenges facing the world today. Aim of the study: to assess perception of non-medical faculties students at Minia University toward acquired immunodeficiency syndrome. Research design: A descriptive cross-sectional research design was utilized in the present study. Setting: This study was conducted at Minia University of selected three non-medical faculties classified into (faculty of Art Education, faculty of Tourism and Hotels and faculty of Dar-ELuloom). Subjects: A simple random sample of 602 students at Minia University, Egypt is included in this study. Tool of data collection: A structured form of interviewing questionnaire was used including three parts, demographic data such as faculty name, student name, age, sex, residence, marital status, academic year. Knowledge about AIDS. Attitudes toward AIDS. Results: the majority of the studied students have low knowledge and the lowest knowledge was in faculty of art education (90.7%) with statistically significant difference ( $p=0.002$ ), the majority of the studied students have positive attitude (82.9%) and the majority was in faculty of Dar-ELuloom (85%). No correlation between knowledge and attitude, it was weak positive correlation. Conclusion: the majority of the studied students have low knowledge with statistically significant difference and the lowest knowledge was in faculty of art education and the majority of the studied students have positive attitude. No correlation between knowledge and attitude. Recommendations: It was recommended that an increase in community knowledge on acquired immunodeficiency syndrome and human immunodeficiency virus promotes more positive attitudes towards people living with human immunodeficiency virus.

Key words: Perception, Faculties, Students, Acquired Immunodeficiency Syndrome (AIDS).

**Introduction**

Acquired Immunodeficiency Syndrome epidemic (AIDS) is one of the most serious public health challenges facing the world today. Surveillance and Statistical Recordings about the disease are therefore being intensified with a well-organized reporting system. Acquired Immunodeficiency Syndrome is now the fourth leading cause of death worldwide. According to World Health Organization (WHO) developing countries have the highest acquired immunodeficiency syndrome prevalence in the world. Africa is the region of the world where acquired immunodeficiency syndrome has had the greatest impact (Paul, 2014). However, unsafe behaviors among at-risk populations set Egypt at risk of a broader epidemic (Taher and Abdelhai, 2016).

Acquired Immunodeficiency Syndrome (AIDS) is caused by a human immune deficiency virus (HIV) that weakens the immune system, making the body susceptible to opportunistic diseases that often lead to death. The predominant mode of HIV transmission is through heterosexual contact, followed in magnitude by perinatal transmission, where the mother passes the virus to the child during pregnancy, delivery or breastfeeding. Other modes of transmission are through infected blood and unsafe injections (Diana, 2015).

Study has concluded that AIDS is a taboo subject as it is related to sex. There also dominates a strong bias among the general public on the nature of this disease, which is described as “a shameful disease” gained from unrestrained sex, drug addiction, by homosexuals and people who do not care enough about personal hygiene (Zefi, 2015). Hence, a clear understanding about knowledge, attitude and practices (KAPs) among any population is very important for planning to control or prevent the spread of HIV (Mulu et al., 2014).

It is very important for university students, who will be our future leader, to have knowledge on our societal, economic, political, and educational and health issues to

enable them to make appropriate policies and programs on these issues when they are called upon to take on these responsibilities. Unless the university students have strong theoretical and practical knowledge on specific burning issue such as this, they will be unable to guide the nation to meet the contemporary challenges of the nation in the field of sexually transmitted infections including human immune deficiency virus (HIV), acquired immunodeficiency syndrome (AIDS) (Mulu et al., 2014).

**The aim of this study**

The aim of the current study was to assess perception of non-medical faculty's students at Minia University toward acquired immunodeficiency syndrome.

**Significance of the study**

Egypt is recognized as a low prevalence country among general populations, with some evidence of concentrated epidemics among people who inject drugs and men who have sex with men. By the end of 2016, the estimated number of people living with HIV was 11,000 in Egypt. 8,742 people are registered and known to be living with HIV. 3,913 or 36% of the estimated (11,000) or 45% of the actual (8,742) were currently taking antiretroviral therapy (Global AIDS Monitoring, 2018).

Knowledge and attitudes regarding AIDS is one of the corner stones in the fight against the disease. Youths are most vulnerable to infection because they engage in risky practices due to a lack of adequate information. Thus, evaluating their Knowledge and attitudes will help in designing appropriate prevention strategies.

**Research Questions**

- What is the knowledge of non-medical faculty's students at Minia University toward AIDS?
- What is the attitude of non-medical faculty's students at Minia University toward AIDS?

- What is the correlation between knowledge and attitudes of non-medical faculty's students at Minia University toward AIDS?

**Subjects and Methods**

**Research Design:**

A descriptive cross-sectional research design was used to achieve the aim of the present study.

**Setting:**

This study was conducted at Minia University of selected three non-medical faculties classified into (Faculty of Art Education, Faculty of Tourism and Hotels and Faculty of Dar-ELuloom).

**Study area:**

The study was carried out at Minia University, Minia Governorate, Egypt (28.10 N° and 30.75 E° and the distance from Cairo was 241 km). The study was conducted during the period from March 2018 to September 2018.

**Sample:**

A simple random sample consisted of 602 students from the total number of students jointed to the three non-medical faculties at Minia University ( 5600 student ) divided into 1- Faculty of Art Education, total number of students (560 student), A random sample of 182 student 2- Faculty of Tourism and Hotels, total number of students (450 student), A random sample of 160 student 3- Faculty of Dar-ELuloom, total number of students (4590 student) , A random sample of 260 student calculated depending on the proportion of knowledge about HIV/ AIDS among university students from previous research (48.3 %) by using the following formula:  $N=px(1-p)x(z\alpha/ d)^2$  in which P= proportion or best guess about the value of proportion of interest,  $Z\alpha=$  power and  $d=$  level of significance. The faculties were selected by simple random sample.

**Inclusion Criteria:**

- Minia university students from the three non-medical faculties.
- All age groups.

**Tool for Data Collection:**

Data were collected by a well-designed structured questionnaire (Perception of Students University toward AIDS questionnaire) which used at university of Joensuu to assess perception of their students toward HIV/AIDS that included knowledge and attitudes toward AIDS, every student filled it. The questionnaire comprised of sixty-four (64) questions.

Perception of Students University toward AIDS Questionnaire included:

Part (1): Demographic data referred to faculty name, student name, age, sex, residence, marital status, academic year.

Eventually, classificatory questions were the personal section (first part) of the questionnaire and were referred to demographic data including age, sex and marital status. They included background information of respondents (student's personal data) whom the study had provided words of explanation not only instructing how to fill in the information requested – but also stressing how opinions need

to be related to the kinds of student answering the questionnaire.

Part (2): It includes knowledge about AIDS, Questions (1-25) were intended to measure knowledge of AIDS among students, the question weight and transform to calculate the total score of knowledge in which the true answer given (1) and wrong and don't know given (0); the total score will ranged from 0-25. Low knowledge for those had total score  $\leq 50\%$ , moderate knowledge (51%-74%), and  $\geq 75\%$  for high knowledge.

Part (3): It includes attitudes toward AIDS, Question 26 – 64 measure the attitudes toward AIDS and its risky taking behavior. Options with numerical order from 5-1 (Likert scale) were included. The question weight and transform to calculate the total to be from 0-4. The total score range from 0-156, those had total score  $\leq 50\%$ , negative attitude and  $> 50\%$  positive attitude.

**Validity:**

The tool was reviewed by five panels of experts in community health department to test the content validity of the tool (Minia University- Faculty of Medicine-Community Health and Preventive Medicine Department, Cairo University - Faculty of Nursing-Community Health Nursing Department).

**Reliability:**

Reliability of tool performed to confirm its consistency.

Reliability Statistics of Tool Cronbach's Alpha	
Knowledge of AIDS	0.74
Attitude toward AIDS	0.73
All	0.75

**Pilot Study**

The pilot study was conducted on 60 students (10%) who met the inclusion criteria to investigate and ensure the feasibility, objectivity, applicability, clarity and adequacy of the study tool and to determine possible problems in the methodological approach or tool. The results of the pilot study used to test the proposed statistical and data analysis methods. The tools were completed without difficulty, adding support to the validity of the instrument. The pilot study sample was excluded from the main study sample. Pilot testing helped the investigator plan for data collection.

**Ethical Considerations**

- Written approval was sought from the ethical committee before undertaking the research.
- The purpose of the study was explained to all students.
- The students had ethical rights to agree or refuse to participate in the study.
- Oral and written consent was obtained from every student.
- Every student was informed that the information and data obtained was confidential and used only for the purpose of the study.

**Procedure for Data Collection**

Administrative approval obtained from the dean of faculty of nursing to the dean of the non-medical faculties, Minia University before implementation of the study.

Meetings with students to explain the objectives of the study where help to gain their cooperation. The oral and written consent took from all students participate in the study. The purpose and nature of the study was explained by the researcher through direct personal communication prior starting to their participation in the study.

Data is confidential between students and the researcher and it is used for the purpose of the research only. Students interviewed per day from 9.00 AM to 1.00 PM in two days each week within average of half hour for every student. The researcher met the students when they were available and stressed on the issue of confidentiality and all students requested to fill out the questionnaire.

**Statistical Analysis:**

The collected data were coded, categorized, tabulated, and analyzed using the Statistical Package for the Social Science (SPSS). Data were presented using descriptive statistics in the form of percentages, frequency, mean and standard deviation. Inferential statistical tests of significance such as chi-square and Pearson correlation were used to identify group differences and the relations among the study variables. Level of significance at  $p < 0.05$  was used as the cut off value for statistical significance.

**Results**

**Table 1: Distribution of the studied university students regarding their demographic data (n=602).**

Data	Total n=602	faculty of Dar-ELuloom n=260	Faculty of Tourism and Hotels n=160	Faculty of Art Education n=182
Age	18-24 20.6±1.5	20-24 21.8±0.8	18-24 19.5±1.03	18-23 19.7±1.2
Sex				
Male	237(39.4%)	92(35.4%)	104(65%)	41(22.5%)
Female	365(60.6%)	168(64.6%)	56(35%)	141(77.5%)
Residence				
Rural	336(55.8%)	123(47.3%)	90(56.2%)	123(67.6%)
Urban	266(44.2%)	137(52.7%)	70(43.8%)	59(32.4%)
Marital state				
Single				
Married	534(88.7%)	223(85.8%)	147(91.9%)	164(90.1%)
Divorced	66(11%) 2(0.3%)	35(13.5%) 2(0.8%)	13(8.1%) 0	18(9.9%) 0
Academic year				
First	323(53.7%)	0	141(88.1%)	182(100%)
Second	12(2%)	0	12(7.5%)	0
Third	4(0.7%)	0	4(2.5%)	0
Forth	263(43.7%)	260(100%)	3(1.9%)	0

Table (1) shows that more than half of studied students were female (60.6%) with mean age 18-24 year (20.6±1.5). Also more than half of studied students are from rural area (55.8%). The majority of the marital state of studied students was single and reported (88.7%).

**Table (2): Distribution of the studied students regarding AIDS knowledge level (n=602).**

Score	Total n=602	faculty of Dar-ELuloom n=260	Faculty of Tourism and Hotels n=160	Faculty of Art Education n=182	P
Low knowledge	512(85%)	221(85%)	126(78.8%)	165(90.7%)	0.002*
Moderate knowledge	86(14.3%)	38(14.6%)	34(21.1%)	14(7.7%)	
High knowledge	4(0.7%)	1(0.4%)	0	3(1.6%)	

\* Significant ( $p < 0.05$ ).

Table (2) shows that (85%) of the studies students categorized to have low knowledge and the lowest knowledge was in faculty of art education (90.7%) with statistically significant difference ( $p=0.002$ ).

**Table (3): Distribution of the studied students regarding HIV/AIDS attitude score (n=602).**

Score	Total n=602	faculty of Dar-ELuloom n=260	Faculty of Tourism and Hotels n=160	Faculty of Art Education n=182	P
Positive	499(82.9%)	221(85%)	137(85.6%)	141(77.5%)	0.06
Negative	103(17.1%)	39(15 %)	23(14.4%)	41(22.5%)	

Table (3) presents that (82.9%) of the studied students categorized to have positive attitude and the majority of the studied students was in faculty of Dar-ELuloom (85%).

**Table (4): Relation of attitude score to knowledge score (n=602).**

Attitude score	Low knowledge n=512	Moderate knowledge n=86	High knowledge n=4	P
Positive	415(81.1%)	80(93%)	4(100%)	0.01*
Negative	97(18.9%)	6(7%)	0	

\* Significant (p<0.05).

Table (4) shows all students with high knowledge had positive attitude (p= 0.01) with significant relation between knowledge and attitude score.

**Discussion**

University students are at high risk of sexually transmitted diseases (STDs), including HIV, considering that their bodily pleasures being strong, with a high affinity for sex since they are in the middle stage of sexual behavior, and possibly changing partners frequently. It was reported that the median duration of the incubation period, between infection with HIV and onset of AIDS was nearly 10years, and many 29- 49 years old with HIV/AIDS may have been infected when they were 19 - 39 years old, approximated university age, and had resulted mostly from heterosexual intercourse rather than gay practices, injected drug use or form blood transfusion (Center for disease control and prevention, 2009).

The aim of this study was to assess perception of non-medical faculty's students at Minia University toward AIDS. Results of this study included demographic data of the studied sample. In addition, the relations between demographic data of the studied sample regarding dependent variables were presented.

In the current study, regarding demographic data of the studied students as in table (1), it was found the higher percentage of studied students were females and more half of them come from rural area (55.8%). The mean age of the studied students was 20.6±1.5 (18-24 year), and as regard marital status (88.7%) of the study group were single while a very small portion was occupied by married /divorce. These results were in consistent with Nyasha and Wim (2018) who studied does integrating AIDS treatment with food assistance affect labor supply? Evidence from Zambia and found that percentage of studied group were females (75.25%) and in agreement with Rui et al., (2015) who studied Chinese university students' knowledge and attitudes toward HIV/AIDS and reported that 68.4% of studied group were females and the mean age was 23±2 years due to more jointed were females and its age which there is a high desire of sex.

Also, the results were in agreement with Anne et al., (2018) who studied knowledge, attitudes and practices in people living with HIV/ AIDS in rural and urban Ghana and found that most of participants from rural area and were females (54.3%), and results were in agreement with Mulu et al., (2014) who studied knowledge, attitude and practices on HIV/AIDS among students of Bahir Dar University and reported the majority (86.2%) of participants were unmarried.

From the present study, it was found that the majority of the studied students categorized to have low knowledge and the lowest knowledge was in faculty of art education (90.7%) with statistically significant difference (p=0.002) in table (2) because they didn't study medical subjects to increase knowledge about diseases. These finding was in agreement with Wasileh (2017) who studied (university students' knowledge of AIDS) and found that

only 54% said they ``knew very little about AIDS", while 32% said they ``knew a great deal about AIDS", and14% said they ``never heard about AIDS", and also in consistent with Sevilay and Media (2014) who studied the level of knowledge and views of the street children/youth about AIDS in Turkey and found more than half of the participants (56.8%) did not have any knowledge on AIDS. Another study Rengin (2017) showed their knowledge about prevention, transmission, treatment, and risk groups regarding HIV AIDS was unsatisfactory; their information on prevention in particular was low. Low level of knowledge indicates a requirement for education and improves awareness toward AIDS.

On the contrary with Hans and Ronan (2016), they found that better knowledge leads to a later onset of sexuality and more consistent condom use; on the other hand, they found that adolescents who start sex earlier and use condoms inconsistently tend to be more knowledgeable about AIDS. And also in contrast with Dewi (2015) who reported that adolescents' knowledge related to HIV / AIDS is high at an average of (85%) because they get information from electronic media such as the Internet. Because most of the students already have a mobile phone. Parents who have children in adolescents' age are considered adults and were given mobile phones as a means of communication. High level of knowledge about HIV and AIDS is very important for the respondent to have a positive attitude to prevent risky behaviors that can transmit HIV & AIDS.

Although table (3), shows attitude score of the studied students. It was found (82.9%) of the studied students categorized to have positive attitude and the majority of them was in faculty of Dar-ELuloom (85%) due to many students point of view that AIDS is a shame disease that related to sexual practices. Similarly to Vered and Lawrence (2017) stated results about HIV/AIDS tendency to hold positive attitudes toward prevention but on the contrary, with Saad et al., (2017) showed that tendency of having negative attitudes towards HIV/AIDS patients reported in (54%) of participants while (46%) exhibited more positive attitudes.

This study showed weak positive correlation between knowledge and attitude score of the studied student which was in agreement with Gan´czak et al., (2018) who studied HIV/AIDS knowledge, attitudes, and needs among Arab University Students in United Arab Emirates and found no correlation between knowledge and attitude.

Table (4) shows significant relation between knowledge and attitude score, all students with high knowledge had positive attitude (p= 0.01). the result of this study in agree with Santhosh et al., (2018) who studied knowledge and attitudes towards HIV/AIDS among dental students of Jazan University and found greater knowledge with positive attitudes of students. Also in agreement with Florence and Roland (2012) who studied rural students'

knowledge of HIV/AIDS, and beliefs and their attitude towards people living with HIV/AIDS and found significant positive relationship between knowledge of HIV/AIDS and attitude towards people living with HIV/AIDS among rural student. This implies that, knowledge of HIV/AIDS could enhance students' attitude towards people living with HIV/AIDS and Santhosh et al., (2018) reporting that greater knowledge and positive attitudes. From my opinion high knowledge and education indicates positive attitude.

### **Conclusion**

Based on this study finding, the following conclusions can be drawn:

- The majority of the studied students have low knowledge and the lowest knowledge was in faculty of art education with statistically significant difference.
- The majority of the studied students have positive attitude.
- No correlation between knowledge and attitude, it was weak positive correlation.
- Significant relation between knowledge and attitude score, all students with high knowledge had positive attitude.

### **Recommendations:**

Based on results of the present study the following can be recommended:

- Seminars should be conducted to improve the student's awareness.
- Provision of regular health education programs for all university students about AIDS.
- Implement health and safety education curricula and instruction that help students develop the knowledge, attitudes and behavioral skills needed to adopt and maintain safe lifestyles.
- Mass media campaigns often targeted general knowledge included television campaigns.
- An increase in community knowledge on HIV promotes more positive attitudes towards people living with HIV.
- Policies and strategies should be developed to decrease the disease burden and mortality in youth people in order to preserve their human capital. Moreover, preventing infection is much less costly than treatment.
- Knowledge is important to highlight present deficiencies in awareness and to track the progress of any public health education or policy measures taken in the future.

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