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Summary:

Background: The acquired immunodeficiency syndrome (AIDS) is a disorder caused by cellular and humoral immune dysfunction from infection by the human immunodeficiency virus (HIV 1 and HIV 2).

Patients and Methods: The study was carried out in Kirkuk governorate on 5090 secondary school students from different localities of the city, for the period from the beginning of October 2005 to the end of March 2006. A special questionnaire was applied for each student containing age, sex, class, parent’s education, mode of transmission & methods of prevention.

Results: There was no significant difference between male and female regarding the etiology of AIDS. The knowledge of secondary school students was not related to parent's education.

Conclusions: It is concluded that educational lectures increased the knowledge of students.

Key words: HIV Knowledge, secondary school, Kirkuk.

Introduction:

AIDS or Acquired Immune Deficiency Syndrome is caused by an RNA cytopathic human retro virus which is of two types. HIV 1 and a second virus HIV 2 which is serologically distinct from HIV 1 but causes clinically indistinguishable AIDS in Africa (1). The illness was first described in 1981 and the virus was isolated by the end of 1983, since then AIDS has become a world wide epidemic expanding in scope and magnitude as HIV infection have affected different population and geographic regions. Once infected individuals remain infected for life, within a decade the vast majority of cases develop fatal opportunistic infections as a result of HIV induced deficiencies in the immune system (2).

HIV/AIDS infection is a pandemic occurring in epidemic form on five continents, however not all populations are uniformly affected in one country or another or in the midst of the same country (3). In a review of AIDS morbidity and mortality data for the sub-region, it was indicated that there has been a continued worsening of the epidemic as evidenced by escalating incidence and mortality rates as about (63.70%) were reported of being exposed through heterosexual contact (4).
A QUESTIONNAIRE FORM

A-Personal information:

Name…………………………Sex………
Age………………..
School……………………………..Class…………

Education  level:
Father……………………..Mother……………..

B-Etiology of AIDS:   1- Parasites…………2-
Bacteria………..3-Viruses……..

C-Mode of transmission:

Blood……………
Sex……………….
Insect bite………….
Food and drinks……….
Kissing……………….
Shaking hands…………
Contaminated syringes………..
Mother to fetus……………
Swimming pools…………
Wounds and abrasions……………..
Animals to man…………………

D- Methods of Prevention

Results:

The knowledge of secondary school students on AIDS according to etiology is illustrated in table 1. It is shown that the knowledge of students regarding the cause being virus was 89.78%, did not vary significantly between both sexes. The rate of students believed to be bacteria was 2.68% male and 3.69% female, but 6.88% male and 7.30% female believed that the cause is parasite.

<table>
<thead>
<tr>
<th>Education Status</th>
<th>Father education</th>
<th>No.</th>
<th>Affirmative</th>
<th>%</th>
<th>Mother education</th>
<th>No.</th>
<th>Affirmative</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td></td>
<td>664</td>
<td>586</td>
<td>88.25%</td>
<td></td>
<td>1712</td>
<td>1524</td>
<td>89.01%</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>794</td>
<td>692</td>
<td>87.15%</td>
<td></td>
<td>998</td>
<td>848</td>
<td>84.96%</td>
</tr>
<tr>
<td>Intermedi ate</td>
<td></td>
<td>930</td>
<td>796</td>
<td>85.59%</td>
<td></td>
<td>804</td>
<td>714</td>
<td>88.80%</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td>930</td>
<td>814</td>
<td>87.52%</td>
<td></td>
<td>658</td>
<td>590</td>
<td>89.60%</td>
</tr>
<tr>
<td>Institute</td>
<td></td>
<td>410</td>
<td>372</td>
<td>90.73%</td>
<td></td>
<td>362</td>
<td>338</td>
<td>93.37%</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td>1362</td>
<td>1260</td>
<td>92.51%</td>
<td></td>
<td>556</td>
<td>506</td>
<td>91.00%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5090</td>
<td>4520</td>
<td>88.80%</td>
<td></td>
<td>5090</td>
<td>4520</td>
<td>88.80%</td>
</tr>
</tbody>
</table>

Father education $\chi^2=33.906$  D.F.=5  P<0.05
Mother education $\chi^2=25.626$  D.F.=5  P<0.05

It is shown in table 3, that the knowledge of secondary school students on etiology of AIDS according to classes. In pre-test the rate of affirmative answer among all students was 88.80% while in post-test the rate of affirmative answer was 96.69%. Statistically there was no significant difference between the knowledge of students and their classes.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Total Number</td>
<td>Affirmative Number</td>
</tr>
<tr>
<td>4</td>
<td>2216</td>
<td>1974</td>
</tr>
<tr>
<td>5</td>
<td>1598</td>
<td>1430</td>
</tr>
<tr>
<td>6</td>
<td>1276</td>
<td>1116</td>
</tr>
<tr>
<td>Total</td>
<td>5090</td>
<td>4520</td>
</tr>
</tbody>
</table>

Pretest $\chi^2=3.233$  D.F.=2
P<0.05 Posttest $\chi^2=4.633$  D.F.=2  P>0.05

Comparing the knowledge of secondary school students on methods of transmission is indicated in table 4. It is shown that the percentage of students with affirmative answer for blood transfusion in pre-
Concerning the prevention of AIDS, table 5, shows that the rate of correct answers in pre-test was 10.80% increased to 69.43% in post-test; while the rate of false answers in pre-test was 89.19% decreased to 30.75%.

**Table 5: Knowledge of secondary school students on prevention of AIDS.**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Correct answer</td>
<td>550</td>
<td>10.80%</td>
</tr>
<tr>
<td>False answer</td>
<td>4540</td>
<td>89.19%</td>
</tr>
<tr>
<td>Total</td>
<td>5090</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion:**

HIV/AIDS has become a common problem in the world and started to increase in Iraq following the last war. In addition of having social implication, it has a drastic and devastating economic impact on the family nation thus it is necessary to take immediate action to minimize the future spread of this disease. In the present study the, knowledge about etiology of HIV/AIDS was affirmative in 89.78%, 90.43% of males and 89.0% of females. This reflects that most of the students know the etiological agent of HIV/AIDS being virus. The knowledge of our secondary school students is higher than that reported by Oyo-IITA et al (6) who that 68.8% of secondary school adolescent in Calabar- Nigeria knew the etiological agent of HIV/AIDS and higher than that reported by Opaleye et al (7) who showed that 73% of high school students had correct knowledge of the causative agent of AIDS in South Western Nigeria. While in India it has been shown that 16.3% of adolescent included in reproductive and child health programme knew that AIDS is caused by HIV infection (8). Comparatively Sly et al.(9) reported high number of college students knew the causative agent of HIV/AIDS being virus, they found in their study that 55% of males and 68.98% of females have affirmative answer on etiology of AIDS. As far as the education of parents is concern, it seems from the results of this study that the educational level of parents has no significant effect on knowledge of student about the etiology of AIDS, suggesting that the learning syllabus and audio visual instructions and self education influence their knowledge rather than their parents. Regarding the knowledge of students for the etiology of HIV/AIDS according to classes it seems that their knowledge was not related to classes as no significant difference was found among them in three different classes in both pre and post tests but their knowledge increased in post test. Concerning the knowledge of students about methods of transmission of HIV/AIDS it is found that the highest rate believe that it is transmitted through sex followed by vertical route (mother to fetus), blood transfusion, contaminated syringes and the lowest rate believed that it is transmitted by insects. This reflects that the students has considerable knowledge regarding modes of transmission. In this study the majority of students believed that HIV/AIDS is transmitted by sex (93.43%). This finding is identical to that reported by Oyo-IITA, et al. in Nigeria (6) who reported that 90% of secondary school adolescent knew that HIV/AIDS is transmitted by sexual intercourse. Regarding the insect transmission of AIDS, in pretest 25.26% of our studied groups believed that HIV can be transmitted by mosquitoes, this finding is lower than that reported by study performed on Zimbabwean secondary school pupil (10) who clarified that 54% of subjects believed that mosquitoes can transmit HIV. To ass the efficacy.
of the educational lectures and audio visual aids, a post test was applied to the students to confirm the validity of the information given to them, which showed that the rate of students knowledge about blood, sex, contaminated syringes, mother to fetus, wound and abrasion increased while food and drink, kissing, shaking hands, swimming and animals transmission decreased. This reflects the efficacy of lectures and audio visual aids in widening the knowledge of students about modes of transmission of HIV/AIDS. The low percentage of correct answers about the prevention of AIDS among secondary school adolescents (10.80%) reflects that the majority of them are not aware about prevention of this fatal disease in our community. The increase in the rate of correct answers in post test (69.01%) indicates the efficacy of education in increasing the awareness of adolescents about HIV/AIDS. Further studies are recommended to carry on community wide bases to improve the knowledge of this susceptible group of population.

References: