RESEARCH ARTICLE

PREVALENCE AND AWARENESS OF SEXUALLY TRANSMITTED DISEASES AMONG STUDENTS OF CALIFORNIA LUTHERAN UNIVERSITY.

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Abstract

Background: sexually transmitted diseases are very common among college students, and data shows that the problem is on the rise. We wanted to study Impact among CLU students.

Method: During a public community awareness exhibition for CLU students at the university’s campus, individuals were asked to conduct our survey regarding prevalence and awareness of sexually transmitted diseases. Human subjects were randomly selected, not targeted individuals whom attended the exhibition.

Result: Our data shows that the majority of subjects have reported history of sexual activity (86.1%), with (32.3%) of them reporting multiple sex partners, and up to (16.1%) of them reporting sexually transmitted diseases symptoms. More than half of the subjects (54.8%) got tested for sexually transmitted diseases, and (6.5%) diagnosed with it. Our data also shows that (17.7%) of the subjects report having unprotected sex on a usual basis, and (61.3%) have had unprotected sex at least once in their life.

Trading money for sex (prostitution) is very uncommon among the subjects, with only (6.5%) reported previous experience with prostitution.

Conclusion: We conclude that although prevalence of sexual activity is significant, data shows healthy sexual behavior among subjects, and very good results in comparison with research done on other colleges and universities.

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Introduction:

Sexually Transmitted diseases are infections that usually spread by sexual activity, particularly vaginal intercourse, anal sex, also oral sex. Majority of STDs at first don’t cause any symptoms. This brings about a higher risk of spreading the illness to others. Symptoms and signs of disease may include vaginal discharge, penile discharge, ulcers on or around the genitals, and pelvic pain. STDs obtained prior to or throughout conception might bring about poor results for the baby. Some STDs may cause problems with the ability to get pregnant. The most effective way of preventing STDs is by not having sex. Chances of getting an STD increases with having multiple sexual partners, having unprotected sex.

In 2008, it was estimated that 500 million people were infected with syphilis, gonorrhea, chlamydia or trichomoniasis. At least an additional 530 million people have genital herpes and 290 million women have human papilloma virus.
papillomavirus. STDs other than HIV resulted in 142,000 deaths in 2013. In the United States there were 19 million new cases of sexually transmitted infections in 2010.

**Design of survey:-**

On March 2016, The Saudis club at CLU organized a public community awareness exhibition for CLU students at the university’s campus, sponsored by the Multicultural program of CLU, to spread awareness regarding the dangers of sexually transmitted diseases, symptoms, prevalence, and how to prevent them.

We prepared a questionnaire form that would be filled at the end of the tour. After filling the questionnaire, the individual would place it directly in a sealed box to assure privacy and avoid any social embarrassments. The tour would discuss types, prevalence, physical complications, and prevention, finally at the end of the tour one of the investigators would explain in details the survey and its contents to avoid any misunderstandings, then the individual would be left to fill the form privately and help would be provided upon request. The exhibition lasted for five hours, and at the end of the exhibition a total of (n=72) forms were collected. After data collection, the program Statistical Package for the Social Sciences (SPSS) was used for data entry and analysis.

Human subjects were randomly selected, not targeted individuals whom attended the exhibition.

Inclusive criteria are: any subject, who went on the tour, was explained the form in details with full understanding, completed the questionnaire, and placed it inside the box.

Exclusive criteria are: any subject, who didn’t go on the tour, didn’t have complete understanding of the form, didn’t complete the questionnaire.

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Sexually Transmitted Diseases awareness questionnaire

Age: .............

Gender: ☐ Male ☐ Female

1) Have you ever been involved in any sexual activity? ☐ Yes ☐ No

2) Do you have multiple sex partners? ☐ Yes ☐ No

3) Did you ever experience any of the following symptoms (Painful urination, vaginal discharge, strong vaginal odor, penile discharge, pain during sex or intercourse, anal itching, blisters on the genitalia or around the mouth ...etc)? ☐ Yes ☐ No

4) Have you ever been tested for STDs? ☐ Yes ☐ No

5) Have you ever been diagnosed with a sexually transmitted disease? ☐ Yes ☐ No
   • Which one was it? .................................................. (e.g., chlamydia, gonorrhea, HIV ...etc).

6) Do you usually have unprotected sex? ☐ Yes ☐ No

7) Have you ever had unprotected sex? ☐ Yes ☐ No

8) Have you ever traded sex for money? (Prostitution...etc) ☐ Yes ☐ No
Our variables in the form are checklist designed, and yes or no answers, were as followed:

1- Age.
2- Gender.
3- History of sexual activity (Involving all forms of sexual conduct).
4- Multiple sex partners.
5- Previous experience with any sexually transmitted diseases symptoms.
6- Previous STD checkup.
7- Previous confirmed diagnosis of a sexually transmitted disease.
8- Frequent unprotected sex.
9- History of unprotected sex.
10- Trading money for sex (Prostitution).

Results

1- Students ages averaged from 19 to 26 years old.
2. Gender.

![Gender chart]

3. History of sexual activity (Involving all forms of sexual conduct).

|                | Frequency | Percent |
|----------------|-----------|---------|
| No             | 10        | 13.9    |
| Yes            | 62        | 86.1    |
| Total          | 72        | 100.0   |

4. Multiple sex partners.

| Sexually Active? | Yes | Count | Multiple Sex Partners | Total |
|------------------|-----|-------|-----------------------|-------|
| No               |     |       | No                    | 42    |
| Yes              |     | Yes   | Yes                   | 20    |
|                  |     |       | % within Sexually Active? | 67.7% | 32.3% | 100.0% |

5. Previous symptoms of any sexually transmitted diseases symptoms.

| Sexually Active? | Yes | Count | STD Symptoms? | Total |
|------------------|-----|-------|---------------|-------|
| No               |     |       | No            | 52    |
| Yes              |     | Yes   | Yes           | 10    |
|                  |     |       | % within Sexually Active? | 83.9% | 16.1% | 100.0% |

6. Previous STD checkup.

| Sexually Active? | Yes | Count | Tested for an STD? | Total |
|------------------|-----|-------|--------------------|-------|
| No               |     |       | No                 | 28    |
| Yes              |     | Yes   | Yes                | 34    |
|                  |     |       | % within Sexually Active? | 45.2% | 54.8% | 100.0% |
7. Previous confirmed diagnosis of a sexually transmitted disease.

| Sexually Active? | Diagnosed with an STD? | Total |
|------------------|------------------------|-------|
| Yes              | Count                  |       |
|                  | No                     | 58    |
|                  | Yes                    | 4     |
|                  | % within Sexually Active? | 93.5% |
|                  |                        | 6.5%  |
|                  |                        | 100.0%|

8. Frequent unprotected sex.

| Sexually Active? | Usually Have Unprotected Sex? | Total |
|------------------|-------------------------------|-------|
| Yes              | Count                         |       |
|                  | No                            | 51    |
|                  | Yes                           | 11    |
|                  | % within Sexually Active?     | 82.3% |
|                  |                               | 17.7% |
|                  |                               | 100.0%|

9. History of unprotected sex.

| Sexually Active? | Have you ever had unprotected sex? | Total |
|------------------|------------------------------------|-------|
| Yes              | Count                             |       |
|                  | No                                | 24    |
|                  | Yes                               | 38    |
|                  | % within Sexually Active?         | 38.7% |
|                  |                                   | 61.3% |
|                  |                                   | 100.0%|

10. Trading money for sex (Prostitution).

| Sexually Active? | Have you ever traded sex for money? (Prostitution) | Total |
|------------------|----------------------------------------------------|-------|
| Yes              | Count                                             |       |
|                  | No                                                | 58    |
|                  | Yes                                               | 4     |
|                  | % within Sexually Active?                         | 93.5% |
|                  |                                                    | 6.5%  |
|                  |                                                    | 100.0%|

Cross tabulation of Gender against the previous variables:

| Gender | Sexually Active? | Total |
|--------|------------------|-------|
|        | No               | Yes   | 42   |
| Male   | Count            | 4     | 38   |
|        | % within Gender  | 9.5%  | 90.5%| 100.0%|
| Female | Count            | 6     | 24   |
|        | % within Gender  | 20.0% | 80.0%| 100.0%|
| Total  | Count            | 10    | 62   |
|        | % within Gender  | 13.9% | 86.1%| 100.0%|

| Gender | Multiple Sex Partners | Total |
|--------|-----------------------|-------|
|        | No                    | Yes   | 38   |
| Male   | Count                | 24    | 14   |
|        | % within Gender       | 63.2% | 36.8%| 100.0%|
| Female | Count                | 18    | 6    |
|        | % within Gender       | 75.0% | 25.0%| 100.0%|
| Total  | Count                | 42    | 20   |
|        | % within Gender       | 67.7% | 32.3%| 100.0%|
### Gender * STD Symptoms? * Sexually Active? Crosstabulation

| Sexually Active? | STD Symptoms? | Total |
|------------------|---------------|-------|
|                  | No | Yes  |       |
| Yes              | 36 | 2    | 38    |
|                  | % within Gender | 94.7% | 5.3%  |
| Male             | 16 | 8    | 24    |
|                  | % within Gender | 66.7% | 33.3% |
| Female           | 52 | 10   | 62    |
|                  | % within Gender | 83.9% | 16.1% |
| Total            |     |      | 100.0%|

### Gender * Tested for an STD? * Sexually Active? Crosstabulation

| Sexually Active? | Tested for an STD? | Total |
|------------------|--------------------|-------|
|                  | No | Yes  |       |
| Yes              | 20 | 18   | 38    |
|                  | % within Gender | 52.6% | 47.4% |
| Male             | 8  | 16   | 24    |
|                  | % within Gender | 33.3% | 66.7% |
| Female           | 28 | 34   | 62    |
|                  | % within Gender | 45.2% | 54.8% |
| Total            |     |      | 100.0%|

### Gender * Diagnosed with an STD? * Sexually Active? Crosstabulation

| Sexually Active? | Diagnosed with an STD? | Total |
|------------------|------------------------|-------|
|                  | No | Yes  |       |
| Yes              | 36 | 2    | 38    |
|                  | % within Gender | 94.7% | 5.3%  |
| Male             | 22 | 2    | 24    |
|                  | % within Gender | 91.7% | 8.3%  |
| Female           | 58 | 4    | 62    |
|                  | % within Gender | 93.5% | 6.5%  |
| Total            |     |      | 100.0%|

### Gender * Usually Have Unprotected Sex? * Sexually Active? Crosstabulation

| Sexually Active? | Usually Have Unprotected Sex? | Total |
|------------------|-------------------------------|-------|
|                  | No | Yes  |       |
| Yes              | 31 | 7    | 38    |
|                  | % within Gender | 81.6% | 18.4% |
| Male             | 20 | 4    | 24    |
|                  | % within Gender | 83.3% | 16.7% |
| Female           | 51 | 11   | 62    |
|                  | % within Gender | 82.3% | 17.7% |
| Total            |     |      | 100.0%|

### Gender * Have you ever had unprotected sex? * Sexually Active? Crosstabulation

| Sexually Active? | Have you ever had unprotected sex? | Total |
|------------------|----------------------------------|-------|
|                  | No | Yes  |       |
| Yes              | 16 | 22   | 38    |
|                  | % within Gender | 42.1% | 57.9% |
| Male             | 8  | 16   | 24    |
|                  | % within Gender | 33.3% | 66.7% |
| Female           | 24 | 38   | 62    |
|                  | % within Gender | 38.7% | 61.3% |
| Total            |     |      | 100.0%|
**Discussion:**

Our data shows that the majority of subjects have reported history of sexual activity (86.1%), with (32.3%) of them reporting multiple sex partners, and up to (16.1%) of them reporting sexually transmitted diseases symptoms.

More than half of the subjects (54.8%) got tested for sexually transmitted diseases, and (6.5%) diagnosed with it.

Our data also shows that (17.7%) of the subjects report having unprotected sex on a usual basis, and (61.3%) have had unprotected sex at least once in their life.

Trading money for sex (prostitution) is very uncommon among the subjects, with only (6.5%) reported previous experience with prostitution.

**Gender variation shows:**
- Similar high prevalence of history of sexual activity among both genders.
- Similar percentages (36.8% for males and 25% for females) of multiple sexual partners among both genders.
- Significantly higher incidence of sexually transmitted diseases symptoms among females (33.3%) v.s (5.3%) among males.
- Females showed higher rates of STD checkups with rates of (66.7%) v.s (47.4%) for males.
- Diagnosis for STDs shows similar rates among both genders, with reported chlamydia, trichomoniasis, and human papilloma virus as the causative organisms.
- Although rate of routine unprotected sex is low and similar among both genders. (18.4% for males and 16.7% for females), data shows that more than half of both genders reported previous unprotected sex with higher incidence among females (66.7%) vs (57.9%) for males.
- Data shows low prevalence of trading money for sex “Prostitution” among males (10.5%) and absence of such conduct among females (0.00%).

**Conclusion:**

We conclude that although prevalence of sexual activity is significant, data shows healthy sexual behavior among subjects, and very good results in comparison with research done on other colleges and universities.

We recommend increasing awareness of regular STDs checkup among both males and females especially ones experiencing symptoms.

We recommend providing or spreading awareness about HPV vaccinations to students, to protect from the organism.

We also recommend spreading awareness among males on the dangers of trading sex for money “prostitution”.

**References:**
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