

## Original Research Article

# Cyber sexual harassment: a cross-sectional survey over female university students in Upper Egypt

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## ABSTRACT

**Background:** The striking rise in the internet users has resulted into high potential for abuse. Cyber sexual harassment is a type of internet abuse that carries many negative emotional consequences and could undermine the mentality of young people. The objective of this study is to investigate the rates of exposure to cyber sexual harassment among female students in Beni-Suef University and explore the correlating factors.

**Methods:** A total of 2350 female students representing all academic years of all faculties of Beni-Suef University were recruited to participate in this cross-sectional study. An Arabic language self-administered questionnaire was designed and comprised three sections; socio-demographic characteristics, exposure to cyber sexual harassment in the past 6 months, and emotional effects of exposure.

**Results:** Almost 80% of all the surveyed female students reported experiencing cyber sexual harassment during the past 6 months, and most of the victims were exposed to cyber sexual harassment more than once. Students living in urban areas and students who spent more hours per day using the internet reported more exposure ( $p < 0.05$ ). The harassed students responded mostly by anger (65%), fear (20.1%), hatred (18.5%) and sorrow (18.4%) towards the harassment incidents.

**Conclusions:** Female students in Beni-Suef University are highly vulnerable to cyber sexual harassment, which is shockingly prevalent. Administrations in Beni-Suef University, as well as other Egyptian Universities, should adopt anti-cyber sexual harassment programs. Such programs have to introduce overwhelming policies and regulations that counter fight cyber sexual harassment. Such policies can be used as guidance for the university students, their families and their academic staff.

**Keywords:** Cyber sexual harassment, University students, Internet users, abuse

## INTRODUCTION

The increasing use of the internet has revolutionized the entire world. Communication, conducting business, accessing information and changing the way of thinking are of its incalculable advantages. However, the internet provided ground for illegal activities and made many people exposed and vulnerable to cyber-attacks, such as cybercrime and online sexual harassment.<sup>1-3</sup>

Cyber sexual harassment can be simply defined as "sexual harassment that primarily occurs over the internet". It is an act of violence that mainly targets females. Online sexual harassment can occur through different mediums; chat rooms, social network sites, messaging, e-mails, advertising, automatic linking or spams. Most of sexual harassment acts takes one of these forms; 1) gender harassment (verbal or graphic) in which harasser use gender-humiliating comments or sexual

remarks or images, 2) online sexual attention using direct personal communication to convey sex-related messages, 3) sexual coercion through pressuring the victims to obtain sexual cooperation.<sup>4</sup>

Unfortunately, online sexual harassment cannot be tracked easily since the harasser in many cases is anonymous. In addition, although sexual harassment is a social phenomenon that can occur anywhere during daily communication, the online virtual harassment made the victims accessible wherever they go and at any time.<sup>5,6</sup> Further, the internet use in many countries, including Egypt, is still largely unregulated.<sup>7</sup>

Exposure to sexual harassment leaves many psychological imprints ranging from emotional distress, anger, sorrow, loneliness up to depressive symptoms. It can also undermine career and restrict regular activities.<sup>8,9</sup>

Considering the fact that the digital society in Egypt includes 29.84 million users, 52% of them are younger than 24 years, 98% of them have Facebook accounts, 49% have Twitter accounts and a third of them use Instagram,<sup>10,11</sup> and since sexual harassment is considered a nationwide problem of public health concern, the objective of our study is to detect the frequency of exposure to online sexual harassment among Beni-Suef University female students during the past 6 months, and explore the possible associating factors.

## METHODS

This cross-sectional study was conducted in Beni-Suef University on a total of 2350 female students attending the faculties of the university during the first semester of the academic year 2016/2017. Beni-Suef University is one of the largest educational institutions in Upper Egypt with more than 45000 students registered in 28 faculties; 9 faculties of health and medical sciences, and 19 faculties of other disciplines (natural sciences, engineering, humanities, social and sciences).

### Sampling methodology

The sample size was calculated using Epi-Info version 7 Stat Calc, [Center for Disease Control (CDC), WHO], based on the following criteria; cyber sexual harassment exposure rate of 50%, confidence level of 95%, margin of error of 5% and non-response rate of 20%. Later, a multi-stage random sampling methodology was used to include female students from all faculties and representing all academic years. Male students, students with no internet access, and those who refused to fill in the questionnaire were excluded from the study.

A total of 2500 students were asked to participate in the study; of them 2350 filled in the questionnaire giving a response rate of 94%. In general, response rate was relatively higher in students from medical faculties. Students who refused to participate justified that they did

not see benefits from the study or they did not like to share personal experiences.

### Data collecting tool

For data collection, a self-administrated Arabic language questionnaire was designed. The questionnaire included three sections; I) age, residence, faculty and hours of internet use per day, II) exposure to online sexual harassment during the past 6 months and its frequency, III) the emotional impacts of exposure to harassment (sorrow, disappointment, loneliness, anger, hatred and fear).

Before putting the questionnaire in practice, a pilot study on 250 students was conducted. The Cronbach's alpha for reliability was 0.82 while content validity was judged by a professor of public health. Since there were no modifications on the questionnaire, the pilot sample was added to the final sample.

### Ethical considerations

An approval was obtained from the Research Ethics Committee of the Faculty of Medicine, Beni-Suef University. The students were informed of the purpose of the study and its consequences with confirming confidentiality of data.

### Statistical analysis

Data were analyzed using the software, Statistical Package for Social Science (SPSS Inc. Released 2009, PASW Statistics for Windows, version 18.0: SPSS Inc., Chicago, Illinois, USA). Frequency distribution as percentage and descriptive statistics in the form of mean and standard deviation were calculated. Chi-square, t-test and correlations were done whenever needed. P values <0.05 were considered significant.

## RESULTS

**Table 1: Socio-demographic characteristics of the participating students.**

Characteristics		Overall n (%)
<b>Age (Mean±SD), n=2345</b>		19.9±1.3
<b>Residence</b> <b>n=2290</b>	Urban	1379 (60.2)
	Rural	911 (39.8)
<b>Faculties</b> <b>n=2350</b>	Medical	643 (27.4)
	Non-Medical	1707 (72.6)
<b>Internet use (Mean±SD) hs/d, n=2325</b>		6.3±4.2

This study included 2350 female students with a mean age of 19.9±1.3 years, 60.2% were residing urban areas compared to 39.8% in rural areas, and 27.4% were attending in medical faculties while 72.6% were registered in non-medical faculties. The mean daily

internet use was  $6.3 \pm 4.2$  hours (Table 1). Of the surveyed students, 79.8% reported exposure to cyber sexual harassment during the past 6 months, and 69.9% of the

victims experienced cyber sexual harassment more than once.

**Table 2: Factors associated with exposure to cyber sexual harassment among the participating students during the past 6 months.**

Characteristics	Exposed n (%)	Not-exposed n (%)	P value	OR
<b>Age (Mean<math>\pm</math>SD), n=2345</b>	19.9 $\pm$ 1.3	19.9 $\pm$ 1.3	0.372	---
<b>Residence</b> <b>n=2290</b>	Urban 1129 (61.8)	250 (54.1)	0.002	1.14
	Rural 699 (38.2)	212 (45.9)		0.83
<b>Faculties</b> <b>n=2350</b>	Medical 507 (27.0)	136 (28.7)	0.251	0.94
	Non-Medical 1369 (73.0)	338 (71.3)		1.02
<b>Internet use (Mean<math>\pm</math>SD) hs/d, n=2325</b>	6.4 $\pm$ 4.1	5.9 $\pm$ 4.2	0.038	---

**Table 3: Factors associated with frequency of exposure to cyber sexual harassment among the participating students during the past 6 months.**

Characteristics	Once n (%)	More than Once n (%)	P value	OR
<b>Age (Mean<math>\pm</math>SD), n=1871</b>	19.9 $\pm$ 1.3	19.9 $\pm$ 1.3	0.737	---
<b>Residence</b> <b>n=1828</b>	Urban 256 (56.6)	873 (63.4)	0.006	0.89
	Rural 196 (43.4)	503 (36.6)		1.19
<b>Faculties</b> <b>n=1876</b>	Medical 138 (29.3)	369 (26.3)	0.111	1.11
	Non-Medical 333 (70.7)	1036 (73.7)		0.96
<b>Internet use (Mean<math>\pm</math>SD) hs/d, n=2325</b>	5.7 $\pm$ 4.2	6.6 $\pm$ 4.1	<0.001	---

The results showed that both age and faculty attended played no role in exposure to cyber sexual harassment ( $p > 0.05$ ). However, female students residing urban areas and those who spend more hours online were more likely to experience cyber sexual harassment ( $p < 0.05$ ) (Table 2). Alike, female students residing urban areas and girls who reported more online hours per day were more likely to fall victims to cyber sexual harassment more frequently during the same period ( $p < 0.05$ ) (Table 3).

Multi-variate logistic regression for the factors associated with exposure and frequency of exposure to cyber sexual harassment, by uni-variate analysis, showed that age and daily hours of internet use were potential risk factors ( $p < 0.05$ ).

**Table 4: Psychological consequences of exposure to cyber sexual harassment during the past 6 months.**

Consequences	Overall n (%)
<b>Anger</b>	1220 (65.0)
<b>Fear</b>	378 (20.1)
<b>Hatred</b>	347 (18.5)
<b>Sorrow</b>	345 (18.4)
<b>Disappointment</b>	192 (10.2)
<b>Loneliness</b>	61 (3.3)

When students were asked about the emotional responses for exposure to cyber sexual harassment, anger was

expressed by most of the victims (65%), followed by fear (20.1%), hatred (18.5%) and sorrow (18.4%) (Table 4).

## DISCUSSION

Cyber sexual harassment has been linked to the increased use of computers and smart phones and the great jump in the number of internet users worldwide. This study introduces an overview about cyber sexual harassment among university female students in Beni-Suef, Egypt. Our results suggested that cyber sexual harassment has become a problem of great concern since 79.8% of the female students participating in our study reported exposure to cyber sexual harassment at least for one time throughout the past 6 months, and most students experienced cyber sexual harassment more than once during the same period.

Nationally, the United Nations Statistical Commission reported that sexual offences against females have been evident in Egypt<sup>12</sup> and the reported sexual harassment acts are unfortunately increasing.<sup>13</sup>

In consistence with our findings, previous studies showed that females were victims most of the time to cyber sexual harassment, however the rates in our study are much higher than the victimization rates in these reports.<sup>6,14-18</sup> Nevertheless, putting our findings into comparison with other studies is difficult, as these studies adopted various definitions for cyber sexual harassment.

For instance, some restrictive definitions considered cyber sexual harassment only under three conditions; power imbalance, intention to harm and repetition but intention and repetition were not conditions for reporting cyber sexual harassment in our study.<sup>17,18</sup>

The rates of exposure to cyber sexual harassment should be investigated within the context of the societal environment that encourages violence against women. For example, the International Communication Association concluded that third of the internet traffic contains sexual content and most of this content include aggressive behavior directed towards women.<sup>19</sup> A previous longitudinal study showed that female gender is a risk factor for exposure to online attacks.<sup>20</sup>

A study on street children (12-17 years) showed that 53% of girls in Greater Cairo and 90% in Alexandria experienced sexual abuse, and 93% of all sample faced harassment or abuse.<sup>21</sup> A survey by the population Council West Asia and North Africa Office showed that more than 405 of young girls (10-29 years) in Egypt experienced sexual harassment.<sup>22</sup> In addition, the cultural perspectives in conservative communities, such as the community where this study was conducted, tend to blame the victim which may provide a social excuse to harassers, so they can go away with their acts.

Putting these facts side by side, cyber sexual harassment can be considered a translation of traditional sexual harassment, but in a different route. In addition, one of the main factors behind the rising rates of cyber sexual harassment is the imbalance of power between the harasser and victim which results from the different abilities in using technologies, and the anonymity of the perpetrator.<sup>14,15</sup>

What is really interesting is despite the high rates of cyber sexual harassment in our study, sexual harassment is a crime by Egypt law, and cyber sexual harassment, according to the article 306 (a) and 306 (b), can attract a prison sentence of 6 months to 5 years and up to 50,000 EGP in fines.<sup>23</sup> This may spot light on the importance of enacting this law, which may help in fighting harassment problem.

Our findings did not show an association between age of students and exposure to cyber sexual harassment. Previous literatures showed inconsistency findings in this regards, however the range of participants' age in this study was too restrictive to show differences in victimization.<sup>6,14</sup> On the other hand, female students residing rural areas were less likely to experience cyber sexual harassment. A previous national report detected higher rates of sexual harassment in urban areas.<sup>21</sup> This can be explained by the fact that the rural communities in Beni-Suef are closed communities, and harassers may not be able to secure their anonymity. Besides, social integration and parental support offered in

rural areas could give protection for females from harassment.<sup>24,25</sup>

In this study, hours of internet use per day was associated with exposure to cyber sexual harassment which consists with previous findings.<sup>20,26</sup> However, it should be noted that the mean duration spent online by our students was 6.3 hours/day. Such long duration confirms a recent suggestion about internet addiction among Egyptian university students.<sup>27</sup>

The emotional consequences resulting from exposure to cyber sexual harassment varied from anger, which was the most common impact, to fear, hatred, sorrow and disappointment. Alike, previous studies showed that the harassed girls experienced conflict feelings that included anger, disappointment and even depression.<sup>9,28-30</sup>

This study had some limitations. First, only university female students, known to have higher social level than their counterparts, were included. Besides, the conservative nature of the community in Beni-Suef Governorate may undermine the reporting rates and consequently underestimate the results.

In conclusion, high rates of cyber sexual harassment throughout the past 6 months have been detected. Such warning sign should be treated seriously and urgently. Further studies should stress on investigating the association between cyber sexual harassment victimization and academic grading. Awareness programs should be held to inform the students and the teaching staff about the deleterious consequences of exposure to cyber sexual harassment. Anti-sexual harassment programs tailored for university students may be a step on the right way.

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