

# Emergence of Bullying & Cyber-Bullying: Frequency, Consequences and Experiences of Secondary School Students

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**Abstract:** Cyber-bullying has become widespread, and is generating growing concerns as with the increased use of communication technology, and it affects students and school climates in general. The Aim of this study was to investigate the prevalence /or Frequency, Consequences and Experiences of Secondary School Students about emergence of bullying and cyber-bullying. Design: descriptive design was used. Methods: Setting; this study was conducted in two Governmental secondary schools; one for boys and one for girls at Shebin El-Kom City, Menoufia Governorate, Egypt. Sample: A random sample of 260 students from Secondary School Students was selected. Tools: Semi structured self-reported questionnaire to collect a) socio-demographic data; gender, age, B) Traditional or School Bullying questionnaire and C) Cyber-bullying questionnaire. It was developed by the researchers based on the current related literatures. The results of the study: It was revealed that the frequency of traditional Bullying and Cyber-Bullying was 94% and 84.8 % respectively among the total studied sample. The different types of traditional Bullying by Gender; the highest type was "name calling" representing 70.5% for boys and 65.4% for girls, physical bullying represents 14.3% for boys and 8.5% for girls. The types of Cyber-bullying by Gender showed that; threats was reported among girls 25% than 18% of boys, harassment represented to be 20 % of girls than 12 % of boys. Regarding the consequences /or negative effect of cyber-bullying on the victim by Gender, It revealed that 20% of boys and girls complaining from angry feelings, whereas, Suicidal thoughts was higher among girls than boys (14% and 11.4% respectively). The present study conclusion that the emergence frequency of Cyber-Bullying as well as the traditional Bullying represent a very high percentage (84.8 % and 94% respectively) among the total studied sample of secondary school students. A statistical significance difference between exposure time of cyber-bullying and the negative effect on the victim experienced it as reported by them. Recommendations: a). Bullying requires immediate action. B) Health promotion for parents and family members to address bullying problems by monitoring their child's use of electronic media. C). Schools program should develop intervention practices to build a positive school climate and repairing harm when it happens. D) Have strong anti-bullying policies.

**Keywords:** Bullying, Cyber-bullying; Frequency- consequences /or negative health effect.

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## 1. INTRODUCTION

Bullying is a major public health problem that demands attention of health-care providers, policy-makers, families and Health professionals. It is characterized by "repeated exposure of one person to physical and/or emotional aggression including teasing, name calling, threats, harassment, taunting, hazing, social exclusion or rumors" [1]. A wide range of bullying prevalence has been "documented among students and in labor forces worldwide" [2, 3]

School bullying or traditional bullying is “a complex phenomenon affecting children and adolescents in all parts of the world”. Research has looked at “the traditional forms of bullying, including physical (as hitting), verbal (as threats), and social (as exclusion)”. “It is a repeated negative action over a longer period; these negative actions or consequences can be performed by a single person or group and carried out in direct (i.e., physical or verbal) or indirect (i.e., social) form”. The key criteria of bullying are “the harmful intent of the perpetrator as well as an existing imbalance of power, which makes it difficult for the victim to defend himself. School bullying is “a serious concern, which has received considerable media attention” [4].

Bullying is “a toxic psychosocial stressor associated with serious health problems, affecting both the victims and the bullies, it is form of abuse or maltreatment occurs along the lifespan” [5]. Health professionals have the unique responsibility of “discussing related health risks, promoting community awareness, prohibiting bullying and developing emotionally and physically safe environments in schools and workplace settings for the prevention of bullying and related health problems” [6].

Nurses may be familiar with traditional bullying that has a physical outcome, but they know little about Cyber-bullying. To understand the phenomenon, viewing its relationship to traditional bullying is helpful [7]. A relatively new form of bullying is so-called cyber bullying; it is an indirect form of bullying via electronic media [8].

“Cyber-bullying has emerged as a relatively new form of school bullying”. Cyber-bullying has “become widespread, and it affects students and school climates in general, to deliberately harass or threaten another individual or group”. Communication technology is used to intentionally harm others through hostile behavior [9, 10]. Attention focused on cyber-bullying; “a difference between traditional bullying and cyber-bullying is that with school or traditional bullying, the bully needs a physical location in order to harass their victim” [11]. However, with the advent of the Internet and cell phones, cyber-bullying can happen anywhere and at any time. In addition, “with traditional bullying, the bully is most likely known to their victim, whereas with cyber-bullying, the perpetrator can have anonymity, which can have more detrimental effects on the victim”. According to UNICEF; “bullying and cyber bullying are two sides of the same coin” [12].

With the increased use of technology use, cyber-bullying has become increasingly common, especially among teenagers. “Communication technology is used to intentionally harm others, when the Internet, cell phones or other devices are used to send or post text or images intended to hurt or embarrass another person” [13 [14]. Cyber-bullying is “verbal (over the telephone or cell phone), or written (flaming; threats; racial, sexual, or homophobic harassment) using the mediums available: cell-phones, web-logs and websites, online chat rooms, “MUD” rooms (multi-user domains where individuals take on different characters), and Xangas (online personal profiles where adolescents create lists of people they do not like”) [15, 16]. A cyber-bully may or may not know their target. A cyber-bully may be anonymous and may solicit involvement of other people online who do not know the target. This is known as a “digital pile-on” [17].

The practice of cyber-bullying is not limited to children and, while the behavior is identified by the same definition when practiced by adults, the distinction in age groups sometimes refers to the Common, when perpetrated by adults toward adults [18]. Cyber-bullying can include communications that seek to intimidate, control, manipulate, put down, falsely discredit, or humiliate the recipient, the actions are repeated, and hostile behavior intended to harm another [9].

“Cyber-bullying is a worldwide problem, reports indicating that 93% of teens are active users of the Internet and 75% own a cell phone, up from 45% in 2004” [19]. The extent of cyber-bullying and its prevalence to “school bullying found that up 40% of students are victims of cyber-bullying” [20, 21, 22] and “most suggest that online victimization is less prevalent than are school bullying and other forms of offline victimization” [23, 24].

As the online presence of the Arab world has increased, more and more young people are socializing via cyberspace. This interaction comes with the good, the bad and the ugly. Responsible adult supervision can help prevent current cyber bullying and its negative effects on teens [25]. Internet user penetration in Egypt from 2013 to 2019 / (millions) in 2015 was 43.3 % internet users of the Egyptian population, The Statistics Portal [26].

“The violence rate among persons age 12 or older was studied by [27] who reported that 20.1 per 1,000 persons, whereas, [28] they studied in “the Midwest United States, they showed that 30% of participants had been bullied during school, with online social networking sites the most common media employed (68%), the majority of participants had access to

computers (92%), social networking accounts (82%), and cell phones (79%), whereas, Logistic regression analysis revealed no significant differences in bullying or cyber-bullying prevalence based on location (urban or suburban) or demographic characteristics" [29, 30].

A number of serious consequences of cyber-bullying victimization [14] [31] was stressed ; "victims have lower self-esteem, increased suicidal ideation, and a variety of emotional responses, retaliating, being scared, frustrated, angry, and depressed" [32]. People have reported that Cyberbullying can be more harmful than traditional bullying because there is no escaping it [33].

"Cyber-bullying can cause serious psychological impact to the victims; they feel anxious, nervous, tired, depressed, losing confidence as a result being socially isolated from their schoolmates or friends. Mental psychological problems can also show up in the form of headaches, skin problems, abdominal pain, sleep problems, bed-wetting, and crying, it may also lead victims to commit suicide to end bullying" [34, 35].

Consequences of cyber-bullying are multi-faceted, and affect online and offline behavior [36]. "One of the most damaging effects is that a victim begins to avoid friends and activities". Attention to several cases of suicide among youth victims of cyber-bullying was emphasized [37, 38]. Most states now have legislation in place that requires schools to address electronic harassment in their anti-bullying policies, [39]. According to the Global status report on violence prevention, "only more than one third of the 133 countries surveyed are implementing large-scale initiatives to prevent violence, such as bullying-prevention programs, visits by nurses to families at risk" [40].

#### **The Aim:**

The aim of this research was to investigate the prevalence/or Frequency, Consequences and Experiences of Secondary School Students about emergence of bullying and cyber-bullying and it's the effects, on students' Health.

## **2. SUBJECTS AND METHOD**

#### **Research Questions:**

1. What are the prevalence rate/or frequency of bullying and cyber-bullying among Secondary school students?
2. What the differences in the frequency of bullying and cyber-bullying based on gender, and age?
3. What are the types of bullying and cyber-bullying behaviors among secondary school students?
4. How secondary school students are affected (consequences) by bullying and cyber-bullying experiences and does frequency of bullying time affect them?

**Design:** The use of none experimental descriptive and analytic research design to investigate the relationship between the experiences with traditional bullying and cyber-bullying.

**Setting:** The present study was conducted in two Governmental secondary schools; one for boys and one for girls at Shebin El-kom City, Menoufia Governorate, Egypt.

#### **Subjects:**

There are four secondary schools in Shebin El-kom City, two for boys and the two for girls. Multi stage random sampling was used. First: to choose one secondary school for boys and another secondary school for girls. Second: a simple random sampling was used to choose one class from each grade (first, second and third) chosen. Third: the needed sample size was lastly chosen randomly from the selected classrooms.

#### **Sample size:**

The sample size was estimated to be 260 students using Epi-Info computer software program With a 95% level of confidence, significance level of 0.05 and a power of 80% (error=20%) and was increased to 300students. The total number of participants who completed the study were.250 adolescent accepted to fill the questionnaire and 50 of them refused to participate in the study.

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### Instruments for data collection:

Semi structured self-reported questionnaire was used for data collection including the following:

Part one; socio-demographic data, gender, age, father education, mother education and occupation.

Part 2: Traditional or/ School bullying questionnaire: Students' exposure to School bullying was assessed through a self-reported bullying questionnaire. It was developed by the researchers based on the current related literatures. It includes questions related to traditional or school bullying as; have you ever experienced bullying? Where did the bullying take place? ? What type of traditional bullying it was? ? Does your school have an anti-bullying policy? , etc....

Part 3: Cyber Bullying questionnaire: Students' exposure to cyber-bullying was assessed through a self-reported cyber-bullying questionnaire. It was developed by the researchers based on the current related literatures. It includes questions related to cyber-bullying as; do you have computer or laptop? How many hours did you spend on internet daily? , Have you experienced bullying on a social communication network? On which social network did the bullying take place? What type of bullying was it? How often have you been bullied online? As a result of the bullying, do you feel unsafe on a social network? How many times have you been bullied? What is the effect of bullying on the victim? Did the school have Anti-bullying policy? Etc...

### Procedure for data collection:

- Study period: This study was conducted during the period starting from October 2015 to the end of February 2016 at the scholastic year 2015 -2016.
- An official letter from the Faculty of Nursing was delivered to the administrators of the two secondary schools (boys and girls) at Shebin El-Kom), Menoufia Governorate- Egypt, where the data were collected to conduct the study after an explanation of the purpose of the study. The researchers introduced themselves to every participant, explain the purpose of the study and assured them that confidentiality would be maintained throughout the study. Then a verbal consent was obtained from each participant after parental permission had been obtained prior to the adolescents' participation.
- Ethical consideration: Human rights and ethical considerations were followed during the study, with total confidentiality of any obtained data. An oral consent was obtained from administrative authorities in the studied schools, as well as from all participants, after explaining the aim of the study.
- Validity; Instruments were reviewed and tested for validity by 5 experts in pediatric nursing and community health nursing, modification were done accordingly to ascertain relevance and completeness.
- Reliability: The internal consistency of the questionnaires was calculated using Cranach's alpha coefficients. Test-retest was used. The Cranach's alpha of the questionnaire was 0.91 indicate good reliability.
- Pilot study, a pilot study was conducted on 10 students to evaluate the clarity of developed tool before starting the actual data collection. The pilot sample was not included in the total sample of the research work to ensure stability of the answers. Based on the results of the pilot study, modifications, and rearrangement of some questions were done. It also helped to estimate the time needed to fill in the questionnaire.
- The time taken for filling questionnaire was about 15-20 minutes for each student.
- Students were asked about cyber bullying and traditional bulling (school or street) bullying in the past 12 months. Students who agreed to participate in the study are requested to complete the required tool. The researchers introduced themselves to the respondents, and explained the aim and objectives of the study to the students in the study settings.
- Then, the designed questionnaire was distributed to them, with instructions about its filling. This was repeated in each place of the study setting. The researchers were present all the time to clarify any ambiguity.

### Statistical analysis:

Up on completion of data collection, the data collected were coded, data entry, tabulated and statistically analyzed by personal computer and statistical package SPSS version 16. Data were presented using descriptive statistics in the form of

frequencies and percentages for qualitative variables. Chi square test was done for qualitative variable analysis and p-value < 0.05 was considered significant.

### 3. RESULTS

**Table (1):** showed the age of the studied sample ranged from 14 years to less than 17 years was 37.7 % for boys 35.3 % girls. Whereas from 17 to less than 20 years was 50.0% for boys and 44.1% for girls while the least percent (12.3% and 20.6% for boys and girls respectively) was 20 to 23 years old.

**Figure (1)** showed the frequency of school or traditional bullying among the total studied sample. It represents 94% of the total sample that they exposed to Bullying attack as reported by them.

**Figure (2)** showed the frequency of cyber-bullying among the total studied sample. It showed that 84.8% of the total studied sample was attacked cyber bullying as reported by them.

**Figure (3)** showed the frequency distribution of school or traditional bullying experience among adolescents By Gender. It showed that 95.6% of girls compared to 92.1% of boys had experienced school or traditional bullying as reported by them.

**Figure (4)** revealed the distribution of Cyber-Bullying Experience among adolescents By Gender. It showed that 79.8% of boys compared to 89 % of girls were attacked cyber bullying.

**Table (2)** showed the distribution of bullying others and Get into trouble by Age. A statistical significant difference was found between age factor and a bully person and the trouble gets into from being bully.

**Table (3)** showed the distribution of traditional Bullying Characteristics by Gender. It revealed that when asking the studied sample about; were you ever bullied by more than one person? They reported that yes by 66.7% and 75.4% of boys and girls respectively. Whereas, when asking, were you able to tell someone about the bullying? 55.2% and 43.8% of boys and girls respectively.

**Table (4)** clarified the distribution of the effect of traditional bullying on studied sample. When asking about; the number of days dropped out of school because of bullies? Their answer was 26.7 % 39.2% of boys and girls respectively dropped out more than one week from school because of bullying. They reported that 51.4% of boys and 55.4% of girls was afraid of going to school.

**Figure (5)** clarified the different types of school or traditional bullying by gender. The highest type was "name calling" which represents 70.5% for boys and 65.4% for girls. Regarding "physical traditional bullying" it represents 14.3% for boys and 8.5% for girls.

**Figure (6)** showed the types of Cyber-bullying by Gender. Threats was reported commonly among girls 25% than 18% of boys, whereas, harassment represented to be 20 % of girls than 12 % of boys.

**Table (5)** showed the distribution of daily use of technology by Gender. When asking about the numbers of hours spent using of technology daily, they reported that 36.8 % of boys and 29.4% of girls spent 3-4 hours using of technology daily. Regarding the types of media used to cyber-bully were mostly 30.4% and 25.6% of boys and girls respectively on Mobile phone.

**Figure (7)** showed the effect of cyber-bullying on the victim by Gender as reported by them. Angry feelings represent the same percent for boys and girls (21%), whereas, Suicidal thoughts was higher among girls than boys (14% and 11.4% respectively).

**Table (6)** revealed a highly statistical differences was found between the different effect of cyber-bullying on the victim by their age group as reported by them  $\chi^2=31.98$ ,  $P = 0.01$ .

**Table (7)** showed the distribution of the consequences for a bully by Age. There was no statistical significance difference was found between the consequences for a bully by age and gender.

**Figure (8)** showed the effect of Exposure time of cyber-bullying on the victim experienced.

A statistical significance difference between exposure time of cyber-bullying on the victim experienced it as reported by them ( $X^2 = 68.09$ , P value =  $P=0.000$ ).

Table (1): Distribution of Socio-demographic data of the Studied Sample

Socio-demographic data		Gender			
		Boy N=114		Girl N=136	
		No.	%	No.	%
Where do you live in?	village	61	53.5	46	33.8
	city	53	46.5	90	66.2
Age	14- years	43	37.7	48	35.3
	17- years	57	50.0	60	44.1
	20-23 years	14	12.3	28	20.6
Fathers education	Basic education	29	25.4	24	17.6
	Secondary	43	37.7	59	43.4
	University	42	36.8	53	39.0
Mothers Educational	Basic education	27	23.7	22	16.2
	Secondary	48	42.1	59	43.4
	University	39	34.2	55	40.4
Mother Occupation	work	38	33.3	56	41.2
	House wife	76	66.7	80	58.8

Answering the Research Question Number 1:

What are the prevalence rate/or frequency of bullying and cyber-bullying among Secondary school students?

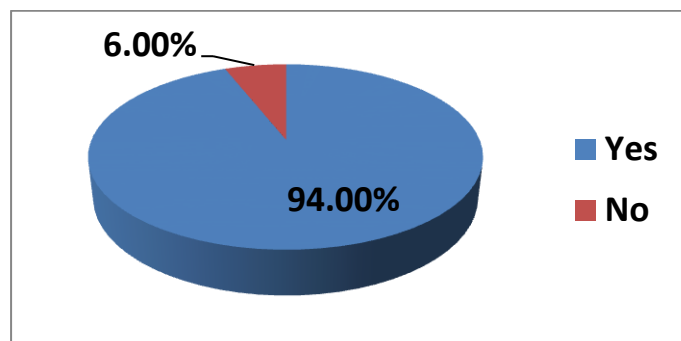


Figure (1): Frequency of school or/Traditional Bullying among Total Studied Sample

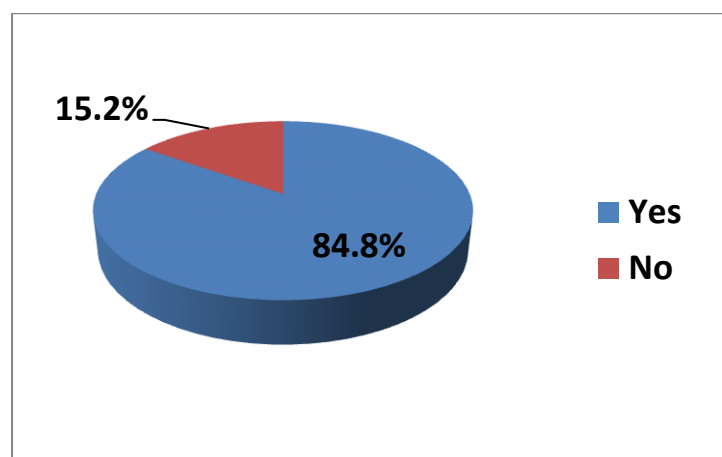


Figure (2): Frequency of Cyber-Bullying among the Total Studied Sample



**Answering the Research Question Number 2:**

What the differences in the frequency of bullying and cyber-bullying based on gender and age?

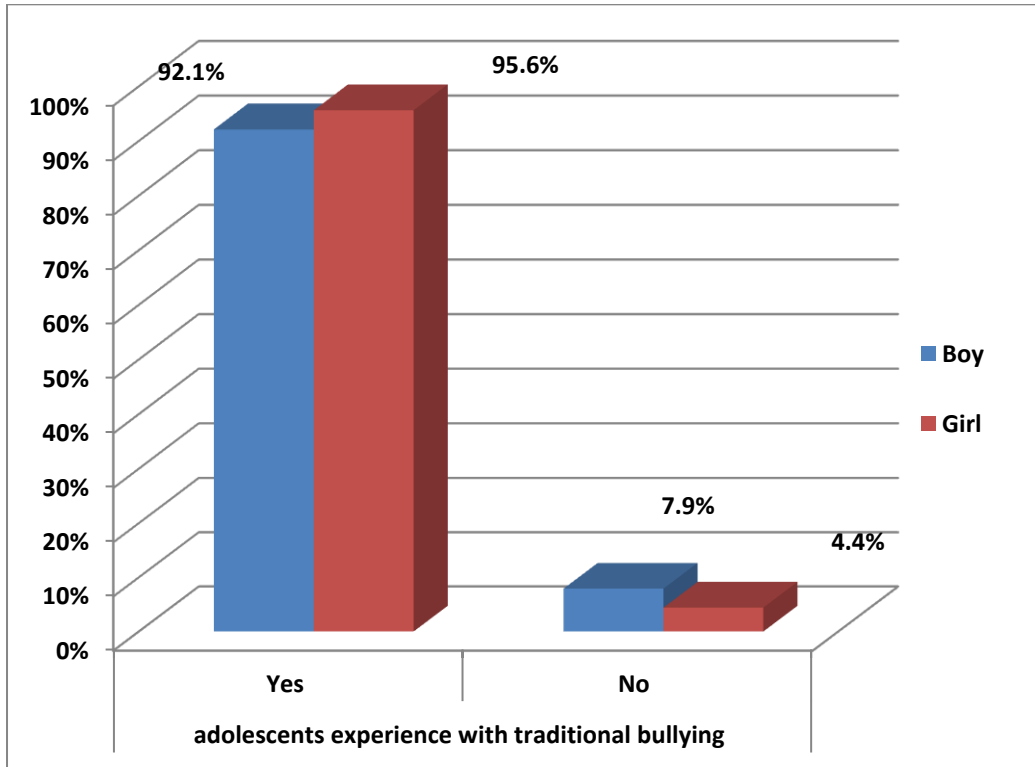


Figure (3): Distribution of School or/ Traditional Bullying Experience among adolescents By Gender

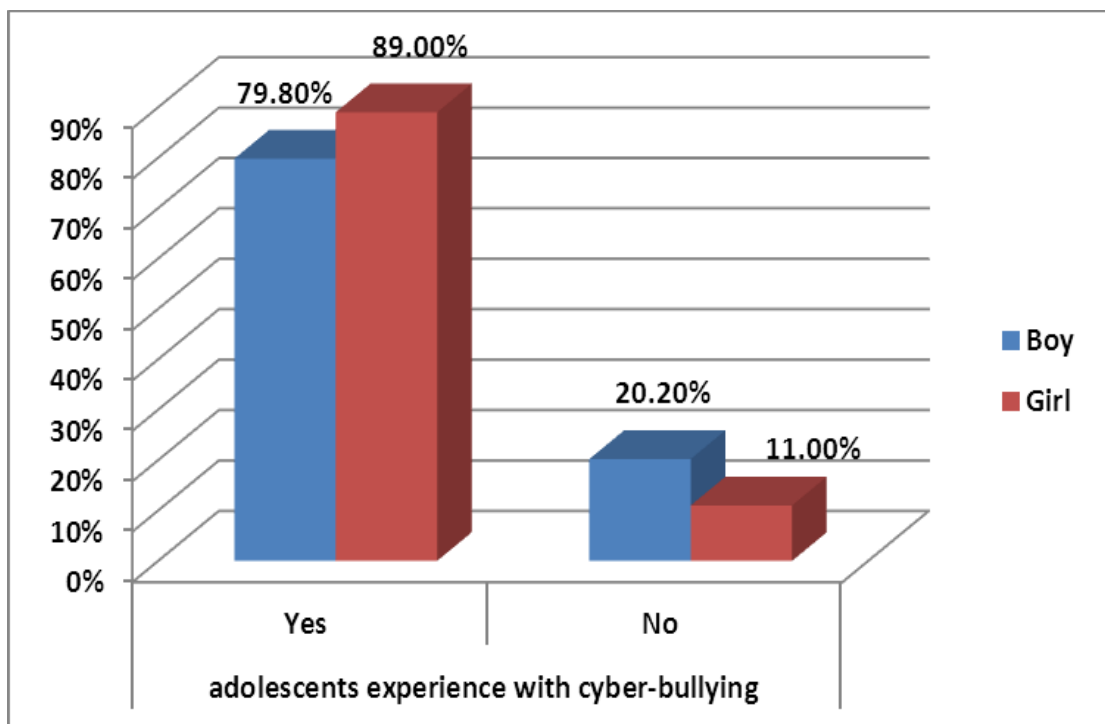


Figure (4): Distribution of Cyber-Bullying Experience among adolescents By Gender

Table (2): Distribution of bullying others and Get into trouble by Age

Have you yourself ever been a bully	Age						Total		X <sup>2</sup>	P value
	14-years		17-years		20-23 years					
	No.	%	No.	%	No.	%	No.	%		
Yes	57	62.6	65	55.1	21	51.2	143	57.2	1.9	0.38
No	34	37.4	53	44.9	20	48.8	107	42.8		
Total	91	100.0	118	100.0	41	100.0	250	100.0		
Get into trouble										
Yes	62	68.1	64	54.2	21	51.2	147	58.8	5.3	0.072
No	29	31.9	54	45.8	20	48.8	103	41.2		
Total	91	100.0	118	100.0	41	100.0	250	100.0		

Table (3): Distribution of Traditional Bullying Characteristics by Gender

Traditional bullying Characteristics		Gender				X <sup>2</sup>	P value
		Boy *N=105		Girl **N=130			
		No.	%	No.	%		
The period that the bullying has been going on in the last 12 months	3 months	21	20.0	21	16.2	2.43	0.487
	3-6 months	7	6.7	12	9.2		
	6-9 months	31	29.5	48	36.9		
	9-12months	46	43.8	49	37.7		
Causes of bullying	Dresses & Appearance	67	63.8	81	62.3	0.11	0.95
	Do not know	38	36.2	49	37.7		
Did you go to doctor or hospital	Yes	44	41.9	57	43.8	0.09	0.43
	No	61	58.1	73	56.2		
Where did the bullying take place	School	8	7.6	19	14.6	3.96	0.56
	street	66	62.9	72	55.4		
	Via internet	13	12.4	15	11.5		
	Mobile	3	2.9	2	1.5		
	transportation	2	1.9	2	1.5		
	others	13	12.4	20	15.4		
Were you ever bullied by more than one person	Yes	70	66.7	98	75.4	2.2	0.093

\*N=105 = Numbers of Studied boys who exposed to traditional bullying

\*\*N=130 =Numbers of Studied girls who exposed to traditional bullying



Table (4): Distribution of the Effect of traditional bullying on studied sample

Characteristics of traditional bullying on Studied Sample		Gender				X <sup>2</sup>	P value
		Boy *N=105		Girl **N=130			
		No.	%	No.	%		
Number of times complain to a teacher	once	6	5.7	24	18.5	12.8	0.012
	2-4 times	6	5.7	13	10.0		
	5-8 times	18	17.1	24	18.5		
	More than 9	33	31.4	25	19.2		
	never	42	40.0	44	33.8		
School was helping adolescents	Yes	35	33.3	46	35.4	0.110	0.425
	No	70	66.7	84	64.6		
Bullying stopped when it was reported	Yes	71	67.6	75	57.7	2.4	0.077
	No	34	32.4	55	42.3		
School having an anti-bullying policy	Yes	59	56.2	73	56.2	0.00	0.551
	No	46	43.8	57	43.8		
Feeling safe at school	Yes	58	55.2	73	56.2	0.02	0.496
	No	47	44.8	57	43.8		
Afraid of going to school	Yes	54	51.4	72	55.4	0.36	0.318
	No	51	48.6	58	44.6		
Number of days dropped out of school because of bullies	One day	11	10.5	4	3.1	8.2	0.084
	More than one day	26	24.8	31	23.8		
	More than one week	28	26.7	51	39.2		
	More than one month	11	10.5	14	10.8		
	never	29	27.6	30	23.1		
School classes about effects of cyber-bullying	Yes	65	61.9	86	66.2	0.46	0.29
	No	40	38.1	44	33.8		

Notes \*N=105 = Numbers of Studied boys who exposed to traditional bullying

Notes \*\*N=130 =Numbers of Studied girls who exposed to traditional bullying

**Answering the Research Question Number 3:**

What are the types of bullying and cyber-bullying behaviors among secondary school students?

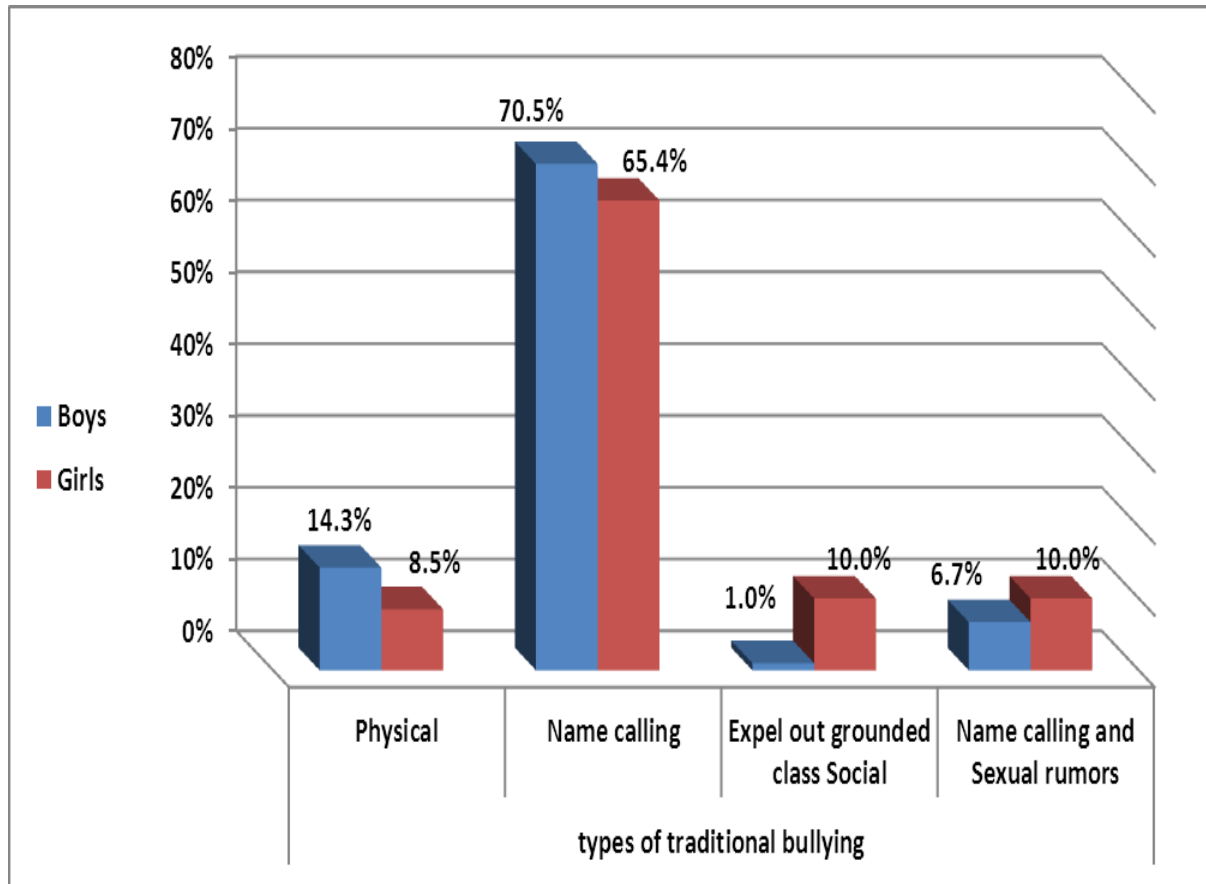


Figure (5): Types of School or Traditional Bullying By Gender

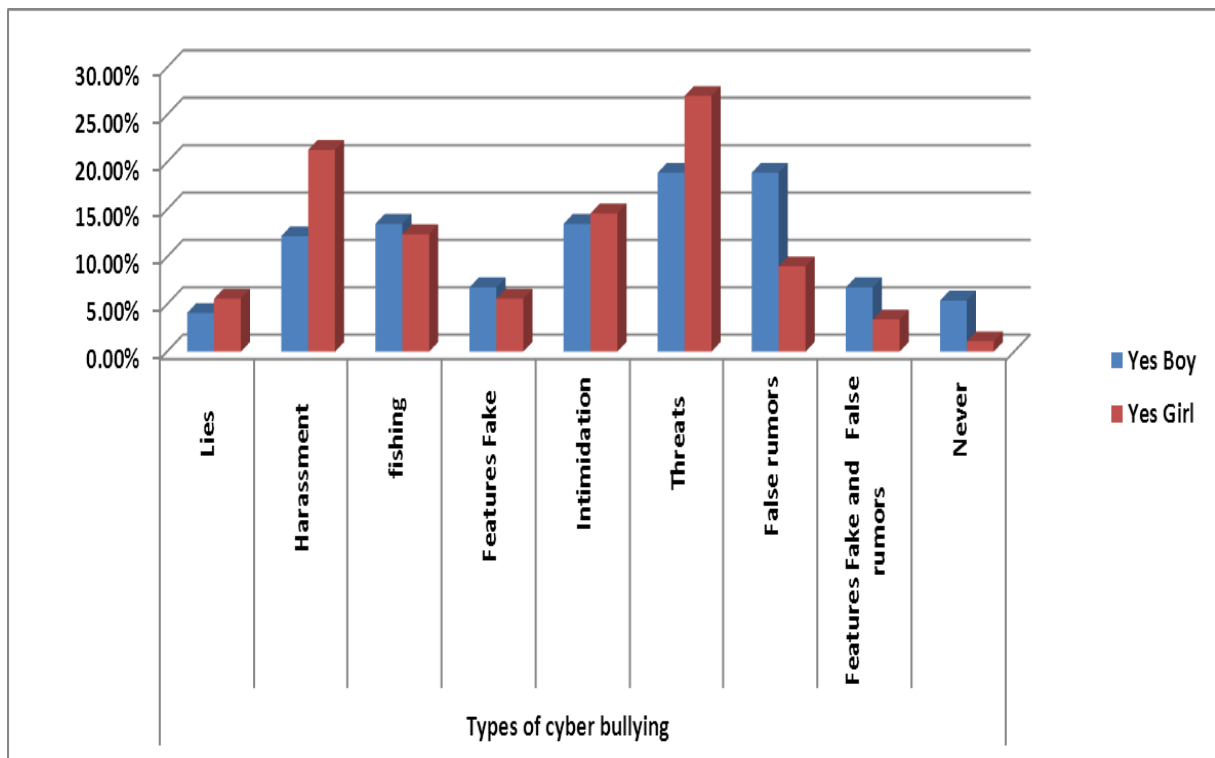


Figure (6): Types of Cyber-bullying by Gender

Table (5): Distribution of Daily use of technology by Gender

Daily use of technology		Gender				X <sup>2</sup>	P value
		Boy 91* (114)		Girl 121** -(136)			
have computer or laptop	yes	106	93.0	124	91.2	0.8	0.39
	no	8	7.0	12	8.8		
Have cell phone	yes	114	100	0	0.0		
Numbers of hours spent at interment daily	1-2 hours	49	43.0	60	44.1	2.24	0.52
	3-4 hours	42	36.8	40	29.4		
	5-6 hours	17	14.9	25	18.4		
	Never	6	5.3	11	8.1		
Types of media used to cyber-bully	Face book	18	19.6	45	37.2	7.26	0.123
	Twitter	19	20.7	23	19.0		
	email	24	26.1	22	18.2		
	Mobile	28	30.4	31	25.6		
	Never	3	3.3	0	0.0		
Period of time have you been bullied online?	Daily	9	9.8	12	9.9	3.27	0.513
	Weekly	18	19.6	26	21.5		
	Monthly	38	41.3	55	45.5		
	Sometimes	25	27.2	28	23.1		
	Never	2	2.2	0	0.0		
As a result of the bullying, do you feel unsafe on a social network?	Yes	55	48.2	96	70.6	12.9	0.000
	No	59	51.8	40	29.4		

Notes \* N =91 = Numbers of Studied boys who exposed to Cyber-Bullying

Notes \*\*N =121 =Numbers of Studied girls who exposed to Cyber-Bullying

**Answering the Research Question Number 4:**

How secondary school students are affected (consequences) by bullying and cyber-bullying experiences and does frequency of bullying time affect them?

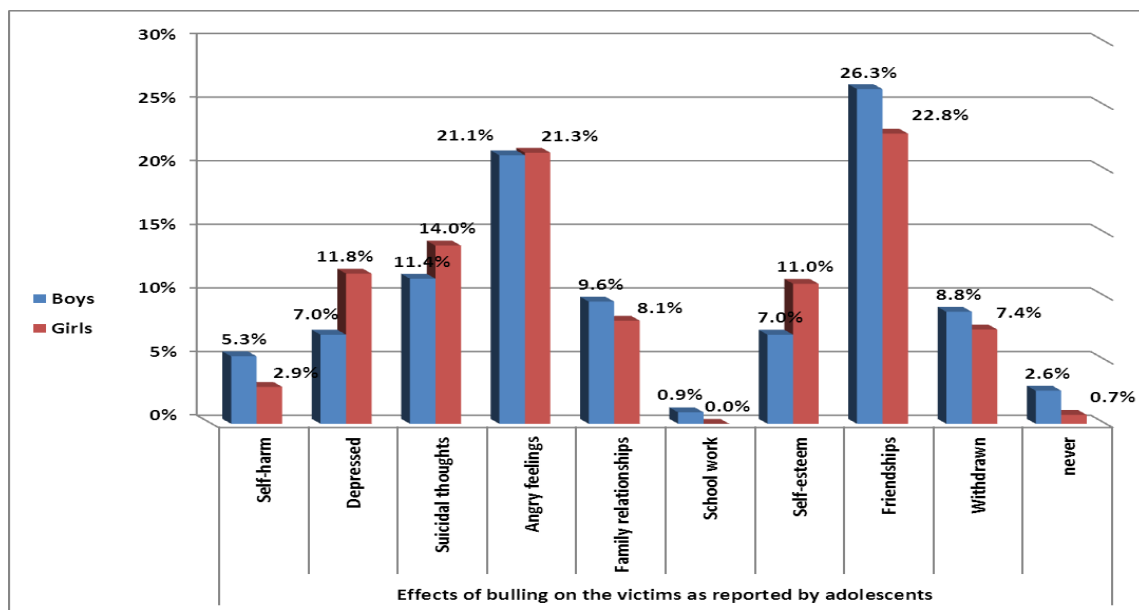


Figure (7): Effect of School or Traditional bullying on the victim by Gender as reported by them X<sup>2</sup> = 6.9, P value =0.64 Significant

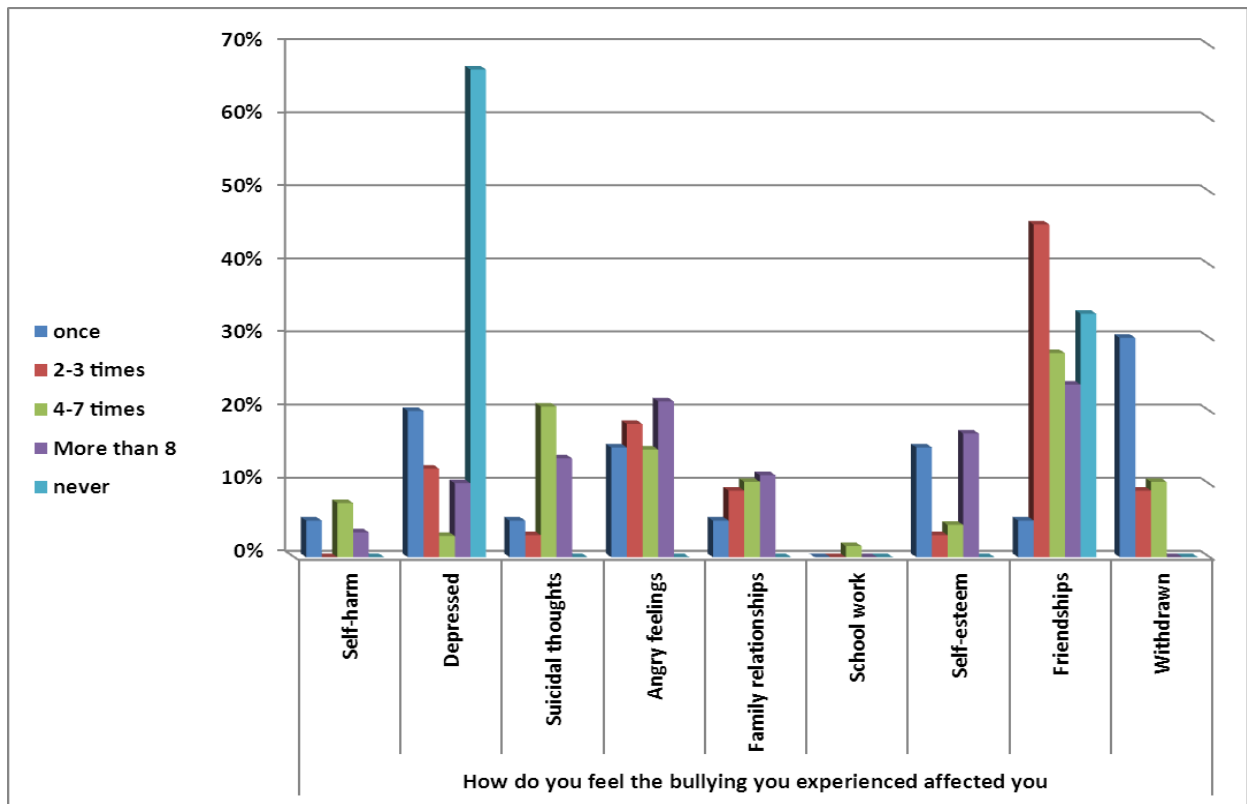


Figure (8): Consequences or effect of cyber-bullying time on the victim experienced it as reported by them  $X^2 = 68.09$ , P value = P=0.000 Significant

Table (6): Distribution of the Effect of cyber-bullying on the victim by age as reported by them

Effect of cyber-bullying on the victim	Age						X <sup>2</sup>	P value
	14- years		17-- years		20-23 years			
	No.	%	No.	%	No.	%		
Self-harm	4	4.9	4	4.2	1	2.7	31.98	0.01
Depressed	4	4.9	14	14.7	3	8.1		
Suicidal thoughts	10	12.3	8	8.5	10	27.0		
Angry feelings	9	11.1	21	22.3	8	21.6		
Family relationships	15	18.5	5	5.3	1	2.7		
School work	1	1.2	0	0.0	0	0.0		
Lower Self-esteem	9	11.1	12	12.8	1	2.7		
Friendships	20	24.7	25	26.6	11	29.7		
Withdrawn	9	11.1	5	5.3	2	5.4		
<b>Total</b>	<b>81</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>		

Table (7): the distribution of the consequences for a bully by Age & Gender

The consequences for bully	Age						X <sup>2</sup>	P value
	14-years		17- years		20-23 years			
	No.	%	No.	%	No.	%		
Permanent exclusion	39	42.9	61	51.7	28	68.3	9.6	0.05
Criminal charges	39	42.9	49	41.5	10	24.4		
Meeting with person they bullied	13	14.3	8	6.8	3	7.3		
<b>Total</b>	<b>91</b>	<b>100.0</b>	<b>118</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>		
	Gender							
	Boy		Girl				X <sup>2</sup>	P value
	No.	%	No.	%				
Permanent exclusion	55	48.2	73	53.7			1.3	0.53
Criminal charges	49	43.0	49	36.0				
Meeting with person they bullied	10	8.8	14	10.3				
<b>Total</b>	<b>114</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>				

#### 4. DISCUSSION

Bullying is not a new phenomenon; “it is a form of mistreatment, mostly seen in schools and the workplace, many students and instructors have been involved in bullying as the recipient, witness, or even perpetrator in the capacity of instructors, administrators, or students”. “Cyber-bullying has emerged as an international public health concern among adolescents; emerging as technological developments because the technology is easy to access, and the bully is able to harass and remain removed from witnessing the victim’s anguish when the communication is received” [41]. The aim of the current study was to investigate the prevalence or/Frequency, Consequences and Experiences of Secondary School Students about emergence of bullying and cyber-bullying.

The current study revealed that the frequency of traditional Bullying and Cyber-Bullying was 94% and 84.8 % respectively among the total studied sample of secondary school students that exposed to Bullying attack as reported by them (Figure (1) & (2)). These current results were higher than [42] who stated that “one out of every two respondents (50%) reported that cyber-bullying is done”. The current result was also higher than the results of [43] who stated that “exposure to bullying varied across countries, was up to 45.2 % among boys, and up to 35.8 % among girls. Boys reported higher rates of bullying in all countries”.

Whereas, University of South Africa [44] they found that “the Bullying Prevalence Rates was as personal bullying: 34.4%, peers bullied: 38.1% and perpetrators of bullying: 23.3%, approximately two thirds of learners indicated that bullying in general had increased during the past 2 years”. Also “two thirds of learners indicated that they believe that technology had made it easier for young people to be bullied online. This finding also confirms that young people, who will not ordinarily bully in the real world, can now bully online due to the anonymity provided by technology”.

While, [45] results were “lower who did his report in Australians they reported that Cyber-bullying was found to be most commonly occur during the transitional stages between primary and high school, Specifically, half were cyber-bullied when 10-12 years, 52% during the ages 13-14 years and almost a third (29%) when aged 15-16 years, the percentages reflect the multiple age groups at which an individual can experience cyber-bullying”. Also [46] their findings from these studies showed weighted mean prevalence rates of general bullying perpetration, bullying victimization and both of 15.1%, 36.3%, and 25.2%, respectively. That discrepancy between the different bullying and cyber bullying prevalence between the current results and the other results may be because most of the studies developed specific questions and evaluated the frequency of cyber-bullying in different ways, depending on the researchers' objectives. Differences in definitions and, consequently, in the forms of measurement may impact on the estimates of prevalence of cyber-bullying and of its impact.

Regarding the use of technology, the current study showed that, more than one third of boys and slightly lower than one third of girls are using of technology with a numbers of hours spending from 3-4 hours daily with a Mobile phone as a types of media used to cyber-bully were mostly 30.4% and 25.6% of boys and girls respectively, Whereas the period of time they have been bullied online? Monthly reported of 41.3% and 45.5% of boys and girls respectively (Table 5). This result was in line with [47]. They found that higher levels of exposure to media with antisocial and risk behavior content significantly contributed to higher initial rates of cyber-bullying behavior. Moreover, an increase in exposure to antisocial media content was significantly related to an increase in cyber-bullying behavior over time. For both boys and girls, higher exposure to antisocial and risk behavior media content increases cyber-bullying behavior over time though more clearly for boys than for girls. Also, the results were similar to [45], who report that “the most common situations for cyber-bullying to occur were; email (46%), online chat rooms (44%), social network sites (43%) and mobile phones (41%), they added that Analysis by gender showed chatrooms to be the most common vehicle reported by male participants (52%), whereas females showed a more even distribution, social network sites (46%) and chat-rooms (42%). This slight discrepancy may be interfering with the availability of any type of media available”.

Considering the types of traditional or school Bullying, the current study clarified the different types of traditional Bullying by Gender; the highest type was "name calling" which represents 70.5% for boys and 65.4% for girls, regarding "physical traditional bullying" it represents 14.3% for boys and 8.5% for girls and the lowest percentage was for Name calling and Sexual rumors represented 6.7% for boys and 10% for girls (Figure, 5). The current result was similar to [43] who reported “bullying in 6 countries; bullying Boys reported higher rates than girls of each of direct physical, direct verbal and indirect types of bullying, and this pattern was apparent in each age group in most countries. No changes by age group in the prevalence of the different forms of bullying”.

Regarding types of Cyber-bullying, the current study clarified that the types of Cyber-bullying by Gender; threats was reported among girls 25% than 18% of boys, whereas, harassment represented to be 20 % of girls than 12 % of boys. False rumors 18% for boys and 8% for girls, Features fake and intimidation was slightly higher among boys 12% than 14% for girls, whereas lies was common among girls 5% than boys 3% (Figure 6). These results were congruent with [43] who reported “about 16.9% of learners reported having been cyber bullied, of those cyber bullied, approximately half the learners received upsetting messages, experienced rumors' spread and were called names, just more than a third of learners experienced false statements made and just more than a quarter received threatening messages”. Other quarter of learners experiences cyber bullying exposed to sexual remarks, unflattering and suggestive personal photos spread online (13.3%) and being bullied, recorded and photos/videos distributed online (8.7%). Also this result was similar to [44]. They pointed out that Cyber bullying takes place mainly through e-mails, SMSs as well as through other social networks. Incidents include upsetting messages; name calling; rumors, and false statements made about young people. It is also noted from the findings that learners also experience being recorded while bullied and compromising images are later posted online, which, once again, highlights the concerns about sexting as a growing phenomenon among the youth. This is demonstrated by the 4.6% of learners who reported that unflattering and suggestive photos were circulated 4.6% experience this type of bullying on other social networks. Those results may be attributed to differences in individual personality characteristics.

Reporting the incidence of bullying or cyber-bullying, the current study result revealed that, when asking, were you able to tell someone about the bullying? 55.2% and 43.8% of boys and girls respectively said no, again when we ask; if you will tell which person you will tell? (Telling someone about bullying) 34.3 % of boys compared to 22.3% of girls said to friend (Table 3). This result was similar to [44] they pointed out that “approximately half the learners who are victims of bullying have reported the incidents, of these, 53.8% reported to parents, which shows that parents are viewed as the first line of protection and have an important role to play in the lives of children”. A further “32.3% reported to friends, which shows a level of trust in friends or that learners easily resort to friends for comfort, Finally, 25.1% reported to teachers and only 2.0% reported to organizations”. Of those reporting bullying, approximately four in every 10 learners (46.5%) reported having informed the bully of the intention to report the incident. This action yielded positive results in that at least 4.7% of the bullying stopped, 14.0 % reported that the bully apologized, 7.2% reported that the bully became scared and 0.7% reported that the bully avoided them. The current study Table (2) reported that 58.1% & 56.2% said no regarding the question; did you go to doctor or hospital? The result was similar to [48]. They stated that, nearly 80 % of respondents had a concern that reporting a violation of cyber-bullying would be held against them and possibly keep them from teaching in the future, especially during these economic times.

Regarding the consequences or/ the negative effect cyber-bullying, the current study revealed the effect of cyber-bullying on the victim by Gender as reported by them; one fifth of boys and girls complaining from angry feelings, whereas, Suicidal thoughts was higher among girls than boys (14% and 11.4% respectively). A highly statistical differences was found between the different effect of cyber-bullying on the victim by their age group as reported by them  $X^2=31.98$ ,  $P = 0.01$  (Figure 7, & Table 6). The current result was congruent with [36] who stated adolescents report increased depressive affect, anxiety, loneliness, suicidal behavior, and somatic symptoms. Perpetrators of cyber-bullying are more likely to report increased substance use, aggression, and delinquent behaviors. Also was in line with [45] who reported that the majority of participants reported that the cyber-bullying had impacted them in some way. The most common areas of impact included self-confidence, self-esteem, and friendships. Notably, one third reported a negative effect on their school grades, school attendance and family relationships.

The current study result showed the effect of cyber-bullying on the victim by Gender as reported by them. Self-esteem was 11% among girls than 7% for boys, depression 11.8% for girls than 7% for boys, withdrawn 8.8% for boys than 7.4% for girls (Figure (8)). This result was in-line with [39]. Their findings are based upon a study involving 2,000 of school students that found that student who is either victims or perpetrators of cyber-bullying had lower self-esteem than student who was not involved in any way. Also the current results was so what lower than the result of [45]. The majority of participants reported that the cyber-bullying had impacted them in some way. The most common areas of impact included self-confidence (78%), self-esteem (70%) and friendships (42%). Notably, 35% reported a negative effect on their school grades, school attendance (28%) and family relationships (19%). Also was in-line with [34] who found that Cyber-bullying was associated with moderate to severe depressive symptoms, substance use, suicide attempts. Health professionals should be aware of the violent nature of interactions occurring in the virtual environment and its harm to the mental health of adolescents.

The current study results showed that a statistical significance difference between exposure time of cyber-bullying and the negative effect on the victim experienced it as reported by them ( $X^2 = 68.09$ ,  $P \text{ value} = P=0.000$ ). Also it revealed that studied sample that was exposed once to cyber-bullying had more than one fifth complain from depression (Figure 8). The current study results were similar to [49] who reported that higher levels of cyber-bullying were related to higher levels of depressive affect. Regarding the negative effects of cyber-bullying it was reported that; 93% of cyber-victims reported negative effects; majority of reporting feelings of sadness, hopelessness, and powerlessness. Whereas, [50], reported that, a positive relationship was found between loneliness and cyber-bullying victimization. Cyber-bullying prevention and intervention programs should target all grade levels [51]. Also [52] they pointed out that research is clear that cyber-bullying begins before adolescence. They added that owning a "Smartphone" increases a child's risk for being involved with cyber-bullying both as the target, as well as the perpetrator.

Cyber safety for adolescent girls was examined by [53]. "They emphasized on "Cyber safety is an important issue and action and interventions need to be evaluated for their effectiveness". Also [54] stated that "school communities and families need to work together to educate each other on Internet safety and appropriate ways to interact online". While, [55] a "Swedish population-based study, reported that intervention programs aimed at improving the quality of peer and family relationships among children and adolescents might reduce the incidence of both cyber harassment and traditional bullying and lower the prevalence of psychosomatic complaints". Also [56] pointed out that "there is a need to exploring the use of such technologies to understand children's everyday worlds theoretically and practically". This will force us to ask different research questions, to reflect on ethical and moral stances, to employ both on- and offline methods in more creative ways and to push children's everyday activities in increasingly digitally-mediated childhoods.

## 5. CONCLUSIONS

The emergence frequency of Cyber-Bullying as well as the traditional Bullying represent a very high percentage (84.8 % and 94% respectively) among the total studied sample of secondary school students. The different types of school or traditional bullying by gender revealed that the highest type was "name calling" which represents 70.5% for boys and 65.4% for girls. Regarding "physical traditional bullying" it represents 14.3% for boys and 8.5% for girls. Whereas, the types of Cyber-bullying by Gender showed that; threats were reported commonly among girls 25% than 18% of boys, whereas, harassment represented to be 20 % of girl's than 12 % of boys. A statistical significance difference between exposure time of cyber-bullying and the negative effect on the victim experienced it as reported by them.



**Recommendations/ implications for future:**

Cyber-bullying and bullying prevention and early intervention programs should be a top priority for adolescent student health as necessary:-

**For the Researchers;**

- An understanding of the problem begins with prevalence estimates using unified instruments.
- Further research is required to increase our understanding of the effects of cyber-bullying on adolescent health over time.
- Intensive collaboration is needed for both researchers and the planners of prevention strategies.

**For the Community and School Level:**

- Early identification and assessment of cyber-bullying victims and perpetrators.
- Increasing Knowledge about the etiology, psychosocial determinants, behavioral understanding and the impact of bullying and cyber-bullying on adolescents.
- Educating students and adults working in school about the dynamics of bullying.
- School nurses need knowledge of the phenomenon and early identification and assessment of cyber-bullying victims and perpetrators to plan assessments in clinical practice.
- Schools develop intervention practices to address bullying and cyber-bullying, including teaching social skills and cyber literacy, building a positive school climate and repairing harm when it happens.
- School should have strong anti-bullying policies to prevent bullying and cyber-bullying.

**For Family Level:**

- Health promotion for parents and family members to address bullying problems by monitoring their child's use of electronic media.

**REFERENCES**

- [1] Einarsen S, Hoel H, Zapf D, Cooper CL.(2003).The concept of bullying at work. In: Einarsen S, Hoel H, Zapf D, Cooper CL, editors. Bullying and emotional abuse in the workplace: international perspectives in research and practice, 1st edition. London: Taylor and Francis; p. 6.
- [2] European working conditions survey (2005): violence, harassment and discrimination in the workplace. Dublin: European Foundation for the Improvement of Living and Working Conditions; Available from: <http://www.eurofound.europa.eu/docs/echo/4EWCS/ef0698/chapter4.pdf> [accessed 5 May 2010].
- [3] Due P, Holstein BE, Soc MS. (2008): Bullying victimization among 13 to 15-year-old school children: results from two comparative studies in 66 countries and regions. *Int J Adolesc Med Health*, 20:209-21.
- [4] WHO (2014): [http://who.int/violence\\_injury\\_prevention/violence/status\\_report/2014](http://who.int/violence_injury_prevention/violence/status_report/2014)
- [5] Srabstein J, Joshi P, Due P, Wright J, Leventhal B, Merrick J, Kim YS, Silber T, Kumpulainen K, Menvielle E, and Riibner K. (2008): Prevention of public health risks linked to bullying: a need for a whole community approach. *Int J Adolesc Med Health*. Apr-Jun; 20(2):185-99.
- [6] Srabstein J (2011): Working towards a detection of bullying related morbidity. *Int J Adolesc Med Health*. Dec 9; 24(1):77-82. doi: 10.1515/ijamh.2012.011.
- [7] Olweus D. (2013): School bullying: development and some important challenges. *Annu Rev Clin Psychol*. 9:751–80. doi: 10.1146/annurev-clinpsy-050212-185516.

**International Journal of Novel Research in Healthcare and Nursing**

 Vol. 3, Issue 2, pp: (52-70), Month: May - August 2016, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

- [8] Shariff and Gouin (2005) Cyberbullying: A 21st Century Health Care Phenomenon - Medscape <http://www.medscape.com/viewarticle/846971>
- [9] US. Legal.com (2016): "Cyber Bullying Law and Legal Definition". U.S. Legal Definitions.
- [10] Chibbaro, J. (2007). School counselors and the Cyberbully: Interventions and implications. *Professional School Counseling*, 11(1), 65-68.
- [11] Mason, K. (2008). Cyberbullying: A preliminary assessment for school personnel. *Psychology in the Schools*, 45(4), 323-348.
- [12] UNICEF Canada (2012): Bullying and Cyber-bullying: Two Sides of the Same Coin. Brief submitted by UNICEF Canada to the Standing Senate Committee on Human Rights
- [13] National Crime Prevention Council. [Ncpc.org](http://Ncpc.org). Retrieved on July 6, 2011
- [14] Patchin, J. W.; Hinduja, S. (2006). "Bullies move beyond the schoolyard: A preliminary look at cyberbullying". *Youth Violence and Juvenile Justice* 4 (2): 148–169. doi:10.1177/1541204006286288.
- [15] Smith, Peter K.; Mahdavi, Jess; Carvalho, Manuel; Fisher, Sonja; Russell, Shanette; Tippett, Neil (2008). "Cyberbullying: its nature and impact in secondary school pupils". *The Journal of Child Psychology and Psychiatry* 49 (4): 376–385. doi:10.1111/j.1469-7610.2007.01846.x.
- [16] Li, Q. (2005). Gender and CMC: A review on conflict and harassment. *Australasian Journal of Educational Technology*, 21(3), 382–406.
- [17] Hinduja, S. & Patchin, J. W. (2009). *Bullying beyond the Schoolyard: Preventing and Responding to Cyberbullying*. Thousand Oaks, CA: Sage Publications.
- [18] "DU (2011): law student charged with cyber stalking". THE TIMES OF INDIA. Jun 20.
- [19] Lenhart A, Purcell K, Smith A, Zickuhr K. (2010): Social Media and Mobile Internet Use among Teens and Adults. Pew Research Center Publications; Available at: [http://pewinternet.org/~media/Files/Reports/2010/PIP\\_Social\\_Media\\_and\\_Young\\_Adults\\_Report\\_Final\\_with\\_toplevels.pdf](http://pewinternet.org/~media/Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report_Final_with_toplevels.pdf). Accessed February 9, 2011
- [20] Tokunaga RS. (2010): Following you home from school: a critical review and synthesis of research on cyberbullying victimization. *Comput Human Behavior*. 2(3):277–287.
- [21] Ybarra ML, Mitchell KJ, Wolak J, Finkelhor D. (2006): Examining characteristics and associated distress related to Internet harassment: findings from the second Youth Internet Safety Survey. *Pediatrics*;118 (4):e1169–e1177.
- [22] David-Ferdon C, Hertz MF. (2009): *Electronic Media and Youth Violence: A CDC Issue Brief for Researchers*. Atlanta, GA: Centers for Disease Control and Prevention.
- [23] Williams KR, Guerra NG. (2007): Prevalence and predictors of Internet bullying. *J Adolesc Health*. 41(6 suppl 1):S14–S21.
- [24] Wang J, Iannotti RJ, Nansel TR. (2009): School bullying among adolescents in the United States: physical, verbal, relational, and cyber. *J Adolesc Health*. 45(4):368–375.
- [25] Egypt Independent, 10 April, (2016): Internet user penetration in Egypt from 2013 to 2019.
- [26] The Statistics Portal (<http://www.statista.com/statistics/484939/internet-user-reach-egypt/>).
- [27] National Crime Victimization Survey (2015) NCJ 248973.
- [28] Carter, J and Wilson, F., (2015): Cyberbullying: A 21st Century Health Care Phenomenon. *Pediatr Nurs*; 41(3):115-125.
- [29] The National Center for Education Statistics and Bureau of Justice Statistics (2015)
- [30] Bureau of Justice Statistics (2015). Office of Justice program, [www.bjs.gov/index.cfm?ty=dcdetail&iid=245](http://www.bjs.gov/index.cfm?ty=dcdetail&iid=245).

**International Journal of Novel Research in Healthcare and Nursing**

 Vol. 3, Issue 2, pp: (52-70), Month: May - August 2016, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

- [31] Hinduja, S.; Patchin, J. W. (2008). "Cyberbullying: An Exploratory Analysis of Factors Related to Offending and Victimization". *Deviant Behavior* 29 (2): 129–156. doi:10.1080/01639620701457816.
- [32] Hinduja, S.; Patchin, J. W. (2009). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Thousand Oaks, CA: Corwin Press. ISBN 1412966892.
- [33] <http://demetriuskritikos.com/cyber-bullying/>.
- [34] Bottino, S.M., Bottino, C.M., Regina, C.G., Correia A. V., Ribeiro, W S., (2015): Cyberbullying and adolescent mental health: systematic review. *Cad. Saúde Pública* vol.31 no.3. <http://dx.doi.org/10.1590/0102-311X00036114>
- [35] Hellström, L., Persson, L., and Hagquist, Curt., (2015): Understanding and defining bullying – adolescents’ own views. *Arch Public Health*. 73(1): 4.
- [36] Nixon, C L., (2014): Current perspectives: the impact of cyber-bullying on adolescent health. *Adolescent Health Medicine Therapeutics*. 5: 143–158.
- [37] Deutsch L. (2008): Prosecutors: cyber law applies to suicide case. Associated Press. Available at: [http://www.usatoday.com/news/nation/2008-08-12-327594069\\_x.htm](http://www.usatoday.com/news/nation/2008-08-12-327594069_x.htm). Accessed September 8, 2011
- [38] Kennedy H. (2010): Phoebe Prince, South Hadley High School's ‘new girl’ driven to suicide by teenage cyber bullies. *New York Daily News*. March 29.
- [39] Hinduja S, Patchin JW. (2011): State Cyber-bullying Laws: A Brief Review of State Cyber-bullying Laws and Policies. *Cyber-bullying Research Center*; Available at: [http://cyberbullying.us/Bullying\\_and\\_Cyberbullying\\_Laws.pdf](http://cyberbullying.us/Bullying_and_Cyberbullying_Laws.pdf). Accessed February 9
- [40] WHO (2014): Global status report on violence prevention [http://who.int/violence\\_injury\\_prevention/violence/status\\_report/2014](http://who.int/violence_injury_prevention/violence/status_report/2014)
- [41] Virginia’s Cyber-bullying Laws before the 2011 General Assembly.
- [42] Hinduja, S. and Patchin, J. W. (2005). Research summary: Cyber bullying offending "Emotional and Psychological Consequences". Preliminary findings from an online survey of Internet-using adolescents (<http://www.cyberbullying.us>)
- [43] Craig, W., Harel-Fisch, Y., Fogel-Grinvald, H., Dostaler, S., Hetland, J., Simons-Morton, B., (2009): A cross-National Profile of bullying and victimization among adolescents in 40 countries. *Int J Public Health*. NIH Public Access Author manuscript; available in September 21.
- [44] UNISA, (University of South Africa) (2012): Nature, Extent and Impact of Bullying among Secondary School Learners in Gauteng, the Bureau of Market Research. Web: <http://www.unisa.ac.za/Default.asp?>
- [45] Price, M. and Dalgeish, J., "BoysTown" (2010). Research Summary Report: Cyber-bullying experiences, impacts and coping strategies. Sourced from [www.kidshelp.com.au](http://www.kidshelp.com.au).
- [46] Maïano, C., Aimé, A., Salvat, MC., Morin, AJ, Normand CL., (2016): Prevalence and correlates of bullying perpetration and victimization among school-aged youth with intellectual disabilities: A systematic review. *Feb-Mar*, 49-50:181-95. Doi: 10.1016/j.ridd.2015.11.015. Epub 2015 Dec 29.
- [47] Den Hamer, AH, Konijn EA.( 2015): Adolescents' media exposure may increase their cyber-bullying behavior: a longitudinal study. *J Adolesc Health*. Feb; 56 (2):203-8.
- [48] Drogin, E. Y. Cannon, R. M. Farreau, F C., Hutchison, A G. & Sutphin, L E. (2012). *Psycholegal aspect of cyber-bullying; Dark Side of Social Networking*, American Bar Association; Volume 8, Number 3.
- [49] Raskauskas J, Stoltz AD. (2007): Involvement in traditional and electronic bullying among adolescents. *Dev Psychol*. 43(3):564–575.
- [50] Jackson CL, Cohen R. (2012): Childhood victimization: modeling the relation between classroom victimization, cyber victimization, and psychosocial functioning. *Psychol. Pop Media Cult*.1(4):254–269.

**International Journal of Novel Research in Healthcare and Nursing**Vol. 3, Issue 2, pp: (52-70), Month: May - August 2016, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

- [51] Limber SP, Kowalksi RM, Agatston PW. (2009). Cyber Bullying: A Prevention Curriculum for Grades 6–12. Center City, MN: Hazelden Information and Educational Services.
- [52] Englander EK. Bullying and Cyber-bullying: What Every Educator Needs to Know. Cambridge, MA: Harvard Educational Press; 2013).
- [53] Smith, Peter K. and Thompson, Fran and Davidson, Julia (2014) Cyber safety for adolescent girls: bullying, harassment, sexting, pornography, and solicitation. *Current Opinion in Obstetrics and Gynecology*, 26 (5). pp. 360-365. ISSN 1040-872X
- [54] Ha, L (2015): A Snapshot of Cyber-bullying; *Victims of Crime Research Digest*, Issue No. 7
- [55] Fridh, M., Lindström, M. and Rosvall, M. (2015): Subjective health complaints in adolescent victims of cyber harassment:- a Swedish population-based study. *BMC Public Health*, 2015; 15: 949. Published online 2015 Sep 23. doi: 10.1186/s12889-015-2239-7.
- [56] Ergler, CR., Kearns, R., Witten,K., & Porter, G., (2016): Digital methodologies and practices in children's geographies. *Children's Geographies*, Volume 14, Issue 2, Special Issue: **DOI:10.1080/14733285.2015.1129394**