

## Original Article

# Bullying Among Early Adolescent Egyptian School Students

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## Abstract

**Background:** Bullying among school students is defined as a type of violence that has increased nowadays. It is a very serious problem that can affect children and adolescents with multiple negative impacts e.g. poor school achievement and mental health problems.

**Objective(s):** To assess the frequency of bullying, determine gender differences as regards different bullying behaviors among early adolescent school students.

**Methods:** The study was a cross-sectional study. It was conducted on 350 primary and preparatory school students in Tanta district, Gharbia Governorate, Egypt. A semi-structured questionnaire was administered to the students asking about their socio-economic standards, experiencing different bullying behaviors, their types, and their psychological effects on the affected students.

**Results:** The studied students experienced bullying in the form of bullies (6%), victims (22%), bully-victims (7%), and witnesses (55%). About 56% of students who experienced bullying were males and 44% were females. About 60% of female students were victims versus 39% in males, while males experienced other bullying behaviors (bully, bully-victim, witness). Physical and verbal bullying reached 53.1% & 49.8% respectively, while cyberbullying was 23.2% and sexual bullying 12.1%. Physical bullying was significantly more frequent among male students (p-value = 0.003). However, female students were significantly more experiencing verbal and cyberbullying (p-value = 0.002 & 0.001 respectively).

**Conclusion:** The frequency of bullying experience among early adolescent school students was high. Female students were experiencing bullying behaviors less than male students. Screening for bullying behavior during the routine visits of the adolescents in primary health care facilities is recommended.

**Keywords:** Bullying, gender difference, adolescence

Available on line at:

[jhiphalexu.journals.ekb.eg](http://jhiphalexu.journals.ekb.eg)

Print ISSN: 2357-0601

Online ISSN: 2357-061X

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**Suggested Citations:** Khalil NA, Elsaadany AZ, Mohasseb MM. Bullying among early adolescent Egyptian school students. JHIPH. 2021;51(2):90-97.

## INTRODUCTION

Bullying among children and adolescents is a serious public health problem. It is defined as physical or psychological aggression by a powerful individual or group against the weaker one repeatedly.<sup>(1)</sup>

Previous research reported three bullying behaviors mentioned as bullies, victims, and bully-victims. There are four basic types of bullying that were reported to be most common in early adolescence: physical, verbal, sexual, and cyberbullying.<sup>(2)</sup> Physical bullying is considered any unwanted physical contact between the bully and the victim. Verbal bullying is using words and statements to gain power and control over a victim. Sexual bullying is reported as any bullying behavior that is based on gender or a person's sexuality. Cyberbullying is defined as bullying that occurs intentionally and repeatedly through electronic devices and modern communication technology to distress the individuals

e.g. text messaging on mobile telephones or through chatting on social media.<sup>(3)</sup>

Bullying is prevalent in all societies, aiming to gain high status, dominance, more resources, securing survival, and reducing stress.<sup>(4)</sup>

The World Health Organization (WHO) stated that "the frequency of bullying was estimated to be 8-30 % and may reach 50% in many studies".<sup>(5)</sup>

There was a great variation in the prevalence rates of bullying among different countries, but the rate among the Arab world was the highest.<sup>(6)</sup>

The prevalence of bullying in Egypt was 77.8% among adolescent rural school students. Among these, bully-victims were 57.8%, which would be explained by the likelihood of victims turning into bullies in a way to express their anger.<sup>(7)</sup> Also, another Egyptian study reported that the prevalence of physical violence was the highest prevalence, which was 69% for victimization and 82.8% for witnessing of violence.<sup>(8)</sup> Bullying has been affected by many risk factors either individual factors, family factors, teachers, school

climate, and the effect of peers, where being a victim of bullying is related to social vulnerabilities, low social status, being different, and being perceived as psychologically or physically weak.<sup>(9)</sup>

Students in the early adolescent stage presented to family health clinics suffering from physical and psychological problems and educational effects which are related to their involvement in bullying practice.<sup>(10)</sup>

Consequences of bullying behavior may be immediate such as being injured from a physical attack and immediate psychological effects in form of depressed mode, anxiety, and excessive stress. Long-term consequences include feeling insecure, lack of trust, avoidant personality disorder, post-traumatic stress disorder (PTSD) or develop further health challenges.<sup>(11)</sup>

The educational consequences include school absenteeism, avoiding social school activities. This in turn affects final academic achievement and attainment. This effect may extend to future education and employment possibility.<sup>(12)</sup>

Since bullying is an important global health problem that has a serious negative impact on children and adolescents, this study was conducted to highlight different types of bullying and associated circumstances among male and female adolescent students.

The aim of this study was to assess the frequency of bullying and determine gender differences as regards different bullying behaviors among early adolescent school students.

## METHODS

The study was a cross-sectional study. The study was conducted on early adolescent school students (11-14 years old) in Tanta district, Gharbia Governorate, Egypt. One primary and one preparatory school were selected by simple random sampling technique.

The calculated sample size was 264 based on the prevalence of bullying at school which was 77.8%.<sup>(7)</sup> It was determined using the online Epi Info Program for sample size calculation, the total number of the target population was 77043, considering the power of the study 80%, confidence interval of 95%, and 0.05 as the absolute sampling error that can be tolerated. The sample was increased to 375 to compensate for any data loss and to decrease the sampling error. On reviewing the data, 12 questionnaires were not received from the students and 13 questionnaires had missing data so, 25 questionnaires were excluded from the sample and finally, 350 students were included in the study. The students were selected from both schools by proportional allocation method to be 187 students from the primary school and 163 students from the preparatory school.

The students from each school were selected by simple random sampling technique and were approached in two sessions, the first session was conducted to explain the objectives of the study to the students and the teachers. The students were asked to get their parents' permission through a written consent. Their parents were requested to answer the questions about their socioeconomic status. In the second session, the semi-structured questionnaire was distributed among the studied participants during the mid-day break for half an hour.

A semi-structured questionnaire was distributed among the studied participants. The questionnaires were anonymous to allow the students to feel free to answer the questions. The questionnaire included basic identification data like age, gender, and residence. The socioeconomic level was also assessed based on the socioeconomic scoring system.<sup>(13)</sup> It also included questions about bullying derived from the bullying questionnaire<sup>(14)</sup>, which included questions about bullying experiences at school during the last month (e.g. if the student has been involved in some way either as being a bully or victim or both bully-victim or has witnessed bullying experience), in addition to questions about common causes of bullying from the point of view of every student, questions which determine the common types of bullying among the studied students either physical bullying (e.g. beating, hitting, or stealing), verbal bullying (e.g. being called by nasty names or being threatened), cyberbullying (e.g. messages or pictures through phone or internet annoying the student) or sexual bullying (e.g. unwanted sexy messages, jokes, pictures, and sexy rumors about the student), questions about different circumstances associated with bullying (e.g. the most frequent place of bullying), the most accepted way used to cope with bullying (e.g. to avoid the situation, to ignore it, to defend himself, to get help from friend or teacher...), how he terminated a bullying attack and his opinion on how to solve this problem. The questionnaire also included questions about the effect of bullying on the student (e.g. school avoidance, suicidal thoughts, feeling angry on remembering the bullying situation).

## Statistical analysis

The results of this study were collected, revised, coded, tabulated, and analyzed statistically by Statistical Package of Social Science (SPSS) version 20 (using IBM personal computer). Quantitative data (age) was expressed as mean and standard deviations ( $X \pm SD$ ). Qualitative data were expressed as numbers and percentages and analyzed applying Chi-square test and Fisher's exact test, p-value <0.05 was considered statistically significant.

### Ethical considerations

The study was approved by the Research Ethics Committee of the Faculty of Medicine, Menoufia University. A permission was taken from the administrative authorities of schools after clarification of the study objectives. Written consent was obtained from parents of all studied students and data were used for the research purpose only.

## RESULTS

The mean age of the participants was  $12.3 \pm 1.1$  in this study, about 53% of them were from the primary school and 87.4% were of middle socioeconomic level. The mean age of the students who experienced bullying practice was  $12.29 \pm 1.07$ , about 56% were male students, about 50% from the primary school and about 88% of middle socioeconomic level (Table 1).

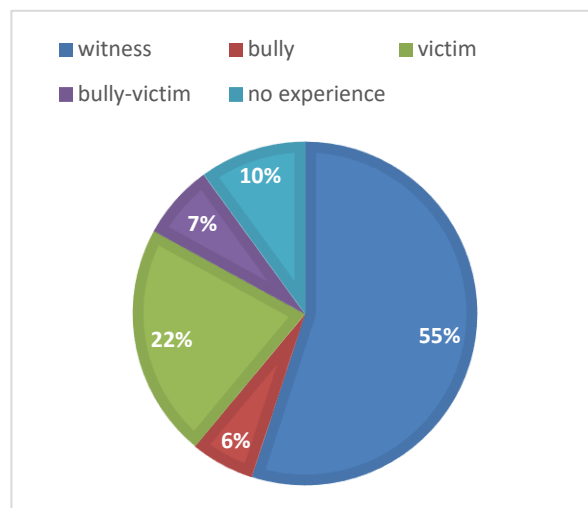
**Table 1: General characteristics of the studied participants**

Characteristic	Adolescents		
	Male (n = 189)	Female (n = 161)	Total (n = 350)
	No. (%)	No. (%)	No. (%)
<b>Age (mean <math>\pm</math> SD)</b>	12.1 $\pm$ 0.9	12.5 $\pm$ 1.1	12.3 $\pm$ 1.1
<b>Bullying experience:</b>			
Yes	175 (92.6)	140 (87.0)	315 (90.0)
No	14 (7.4)	21 (13.0)	35 (10.0)
<b>School</b>			
Primary school	117 (61.9)	70 (43.5)	187 (53.4)
Preparatory school	72 (38.1)	91 (56.5)	163 (46.6)
<b>Socio-economic status</b>			
Low	11 (5.8)	7 (4.3)	18 (5.1)
Middle	167 (88.4)	139 (86.3)	306 (87.4)
High	11 (5.8)	15 (9.3)	26 (7.4)
<b>Participants experiencing bullying (315)</b>			
Characteristic	Male (175)	Female (140)	Total
<b>Age (mean <math>\pm</math> SD)</b>	12.1 $\pm$ 1.01	12.56 $\pm$ 1.1	12.29 $\pm$ 1.07
<b>School</b>			
Primary school	98(56.0)	59(42.1)	157(49.8)
Preparatory school	77(44.0)	81(57.9)	158(50.2)
<b>Socio-economic status</b>			
Low	11(6.3)	4(2.9)	15(4.8)
Middle	153(87.4)	124(88.6)	277(87.9)
High	11(6.3)	12(8.6)	23(7.3)

Students experienced bullying in the form of bullies (6%), victims (22%), bully-victims (7%), and witnesses (55%) (Figure 1).

Among the students who experienced bullying, about 56% of them were males and 44% were females. About 60% of female students were victims versus 39% in males, while males were higher than females

in other bullying behaviors (bully, bully-victim, witness) (Figure 2).



**Figure (1): Frequency of bullying experience among the studied early adolescent students**

Physical and verbal bullying reached 53.1% & 49.8% respectively, while cyberbullying was 23.2% and sexual bullying 12.1%. There was a significant relationship between gender and most bullying types, where physical bullying was significantly more frequent among male students (60.6%) than females (43.6%) ( $p$ -value = 0.003). However, verbal and cyberbullying were significantly more frequent among female students ( $p$ -value = 0.002 & 0.001 respectively). But there was no gender difference regarding sexual bullying (Table2).

Among different reasons for bullying listed by the students, "bothering each other" was reported by 39.4 % of male students while "feeling superiority" was reported by 37.9 % of female students (Figure 3).

Generally, in this study bullying was observed inside & outside the school and on the internet or telephone, there was a significant relationship between gender and bullying place. Bullying was more frequent among male students outside the school (31.4% in male students versus 25% in females), however bullying on the internet or telephone was more prevalent among female students (37.1% in female students versus 26.9% in males) ( $p$ -value = 0.046) ( Table 3).

Regarding the actions that were taken by the victims 28.6% of male students defended themselves versus 16% of females. While 19.3% of female students were asking for family help versus 11.4% of males ( $p$ -value = 0.008). Teachers stopped bullying in 58.3 % of male students versus 37.9% of female students, while classmates terminated the bullying attack in 26.4% of female students versus 16% of male students ( $p$ -value = 0.002) (Table 3).

On analyzing the psychological effect of bullying, about 94% of female students sometimes avoided going to school to stop bullying versus 73.3% of male students ( $p$ -value = 0.001). Also, about 69% of male students were always remembering bullying situations

versus 50% of female students ( $p$ -value = 0.002). The frequency of male students who reported sometimes feeling angry on remembering bullying situations (45%) was significantly higher than female students (31%) (Table 4).

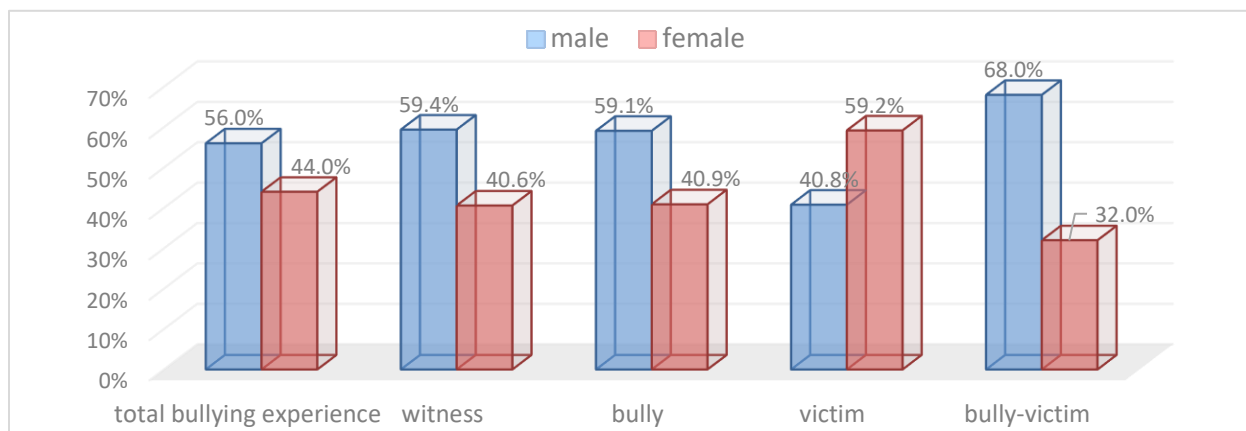


Figure 2: Bullying experience by gender among early adolescents

Table 2: Exposure to different types of bullying among male and female early adolescents

Bullying type	Male (n = 175)		Female* (n = 140)		Total (n = 315)		$\chi^2$	p-value	OR (95% CI)
	No.	%	No.	%	No.	%			
Physical bullying	106	60.6	61	43.6	167	53.1	9.1	<b>0.003</b>	1.9 (1.3-3.1)
Verbal bullying	56	32.0	101	72.1	157	49.8	11.2	<b>0.002</b>	0.18 (0.1-0.3)
Cyberbullying	28	16.0	45	32.1	73	23.2	11.4	<b>0.001</b>	0.4 (0.2-0.7)
Sexual bullying	19	10.9	19	13.6	38	12.1	1.6	0.2	0.7 (0.4-1.5)

\*female is the reference group

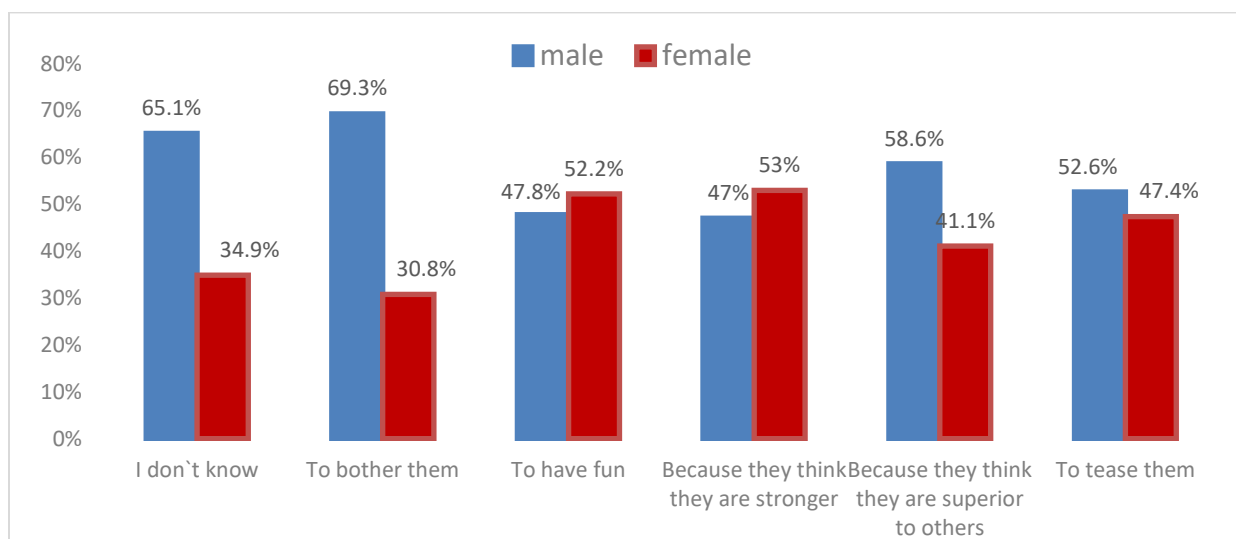


Figure 3: Different causes of bullying reported by male and female early adolescents

**Table 3: Relationship between gender and different circumstances associated with bullying among early adolescents**

Circumstances associated with bullying	Male (n = 175)		Female (n = 140)		Total (n = 315)		$\chi^2$	p-value
	No.	%	No.	%	No.	%		
<b>Bullying usually takes place:</b>								
Inside the classroom	38	21.7	37	26.5	75	23.8	7.9	<b>0.046</b>
Outside the classroom	35	20.0	16	11.4	51	16.2		
Outside the school	55	31.4	35	25.0	90	28.6		
On the Internet /telephone	47	26.9	52	37.1	99	31.4		
<b>Actions that were taken by the victims</b>								
Ignoring it	76	43.4	73	52.1	149	47.3	13.9	<b>0.008</b>
Defended himself	50	28.6	23	16.4	73	23.2		
Asking for a friend's help.	17	9.7	5	3.6	22	7.0		
Asking for teacher's help.	12	6.9	12	8.6	24	7.6		
Asking for help from the family	20	11.4	27	19.3	47	14.9		
<b>Termination of bullying attack by</b>								
No one	38	21.7	37	26.4	75	23.8	14.8	<b>0.002</b>
Teacher	102	58.3	53	37.9	155	49.2		
Social worker	7	4.0	13	9.3	20	6.3		
A classmate	28	16.0	37	26.4	65	26.4		
<b>Solutions to stop bullying</b>								
Cannot be solved	10	5.7	6	4.3	16	5.1	3.5	0.624
I don't know	35	20.0	34	24.3	69	21.9		
Teachers should have a role	50	28.6	44	31.4	94	29.8		
Families should have a role	50	28.6	37	26.4	87	27.6		
Classmates should have a role	30	17.1	19	13.6	49	15.5		

**Table 4: Psychological effects of bullying among the studied early adolescents**

Psychological effects of bullying	Male (n = 175)		Female (n = 140)		Total (n = 315)		$\chi^2$	p-value
	No.	%	No.	%	No.	%		
<b>Attitude towards school</b>								
Positive	6	3.4	8	5.7	14	4.5	1.395	0.498
Neutral	78	44.6	66	47.1	144	45.7		
Negative	91	52.0	66	47.1	157	49.8		
<b>School avoidance to stop bullying</b>								
Never	45	25.7	6	4.3	51	16.2	26.631	<b>0.001</b>
Sometimes	129	73.7	132	94.3	261	82.9		
Always	1	0.6	2	1.4	3	1.0		
<b>Suicidal thoughts to avoid bullying</b>								
Never	169	96.6	134	95.7	303	96.2	2.586	0.274
One time before	6	3.4	4	2.9	10	3.2		
More than one time	0	0.0	2	1.4	2	0.6		
<b>Remembering bullying situations</b>								
Never	12	6.9	2	15.0	33	10.5	12.881	<b>0.002</b>
Sometimes	42	24.0	49	35.0	91	28.9		
Always	121	69.1	70	50.0	191	60.6		
<b>Feeling angry on remembering bullying situation</b>								
Never	92	52.6	94	67.1	186	59.0	6.843	<b>0.033</b>
Sometimes	79	45.1	44	31.4	123	39.0		
Always	4	2.3	2	1.4	6	1.9		

## DISCUSSION

Bullying among adolescents is considered a social and health problem that could affect school performance and psychological health. According to this study,

56% of males and 44% of females experienced bullying in the form of bullies (6%), victims (22%), bully-victims (7%), and witnesses (55%). In comparison an Egyptian study reported that the prevalence of bullying among rural students was about

78 %.<sup>(7)</sup> This also was in agreement with a Turkish study conducted by Alikasifoglu et al which reported nearly the same results, where 22 % of the students were the victims of bullying, 9 % were bully-victims, whereas 9 % were bullies.<sup>(15)</sup> Also, a meta-analysis conducted by Modecki et al.<sup>(16)</sup> including 80 studies that identified bullying prevalence reported that rates of bullying vary across studies from 9% to 98%.

The mean age of the participants who experienced bullying in the current study was  $12.29 \pm 1.07$ . It is similar to American studies which reported that the prevalence of bullying was more among the students ranging from 11 to 13 years old, while less prevalent during later childhood and this variation of prevalence according to age would be related to different changes that occur during each stage of adolescence whether biological, physiological and psychological changes.<sup>(17)</sup>

In the current study, about 60% of female students were victims versus 39% of males, while the frequency of males was higher than females in other bullying behaviors. This was in concordance with the National Center for Educational Statistics of the United States (US) which found that female students were more slightly being bullied at school than male students (24% vs. 17%).<sup>(18)</sup> Also, this was in agreement with the American study conducted by Cook et al. which reported that female students were more prone to be victims while male students were more prone to be bullies or bully-victims, and this could be attributed to the cultural factors where boys in our community especially are less punished for misbehavior compared to girls.<sup>(19)</sup>

In the current study, there was a statistically significant gender difference regarding most bullying types, where male students experienced physical bullying more than females, while female students experienced verbal and cyberbullying more than males. This was in agreement with a Turkish study.<sup>(20)</sup> which reported that boys were more likely to experience physical aggression causing physical harm, whereas girls were more likely to experience other forms of aggression to cause psychological harm. Furthermore, the National Center for Educational Statistics of US concluded that a higher frequency of female than of male students reported being the subjects of rumors (18% vs. 9%) and being excluded from social activities intentionally (7% vs. 4%), whereas male students reported high exposure to physical bullying more than female students (6% vs. 4%).<sup>(18)</sup> Similarly, a Swedish study conducted by Beckman et al. reported that cyber victimization appears generally to be more prevalent among females.<sup>(21)</sup> This was also supported by an American study conducted by Turkel.<sup>(22)</sup> which reported that boys expressed their anger in direct physical ways. However, girls are disciplined to avoid direct physical

aggression in girls, so they tend to gossip and spread rumors to express their anger.

In this study, exposure to sexual abuse was not statistically significantly associated with bullying behavior. This could be attributed to the conservative nature of rural communities where students are very shy to mention anything related to any sexual abuse. These results contrasted with a study conducted by Duke et al. who reported the association between physical fighting and childhood physical and sexual abuse.<sup>(23)</sup>

Regarding the place of bullying, in the current study bullying was observed inside and outside the school and on the internet or telephone and there was a significant relationship between gender and bullying place. Bullying was more frequent among male students outside the school (31.4% in male students versus 25% in females) however bullying on the internet or telephone was more prevalent among female students (37.1% in female students versus 26.9% in males).

In comparison, the results of the National Center for Educational Statistics reported that bullying occurred in the following places: corridors of the school (43%), inside classrooms (42%), in the canteen of a buffet (27%), on the school ground (22%), online or by phone messages (15%), in bathrooms or locker rooms (12%), and on school buses (8%).<sup>(18)</sup> These were also in agreement with the study conducted by Turkman et al. who concluded that bullying often occurred within the classroom, but it was also observed in other parts of the school, like the corridor, and the restroom, as well.<sup>(20)</sup> Similarly, another study conducted by Beckman et al. reported that cyber victimization generally appears to be more prevalent among females.<sup>(21)</sup>

In the current study, 28.6% of victim male students defended themselves, while 19.3% of female students were asking for family help. Teachers tend to stop bullying attacks in 58.3 % of male students and 37.9% of female students, while classmates terminated the bullying attack in 26.4% of female students versus 16% of male students. This was in agreement with a study conducted by Hunter & Borg who reported that males were more likely to defend themselves to avoid victim's negative experiences while females seek social support to cope with bullying.<sup>(24)</sup> Also, this was in agreement with the study conducted by Wachs et al. who reported that teachers were often the first adults that students resort to when exposed to bullying.<sup>(25)</sup> Similarly, an Australian study reported that girls were more likely to seek help from their peers. This suggests that the training and use of peer supporters or mediators may be of particular value for girls.<sup>(26)</sup>

Regarding the psychological effects of bullying among the participants in the current research, about 94% of female students sometimes avoided going to

school to stop bullying versus 73.3% of male students. Also, about 69% of male students were always remembering bullying situations versus 50 % of female students. Frequency of male students who reported sometimes feeling angry on remembering bullying situations (45%) was significantly higher than female students (31%).

This agreed with the results concluded by UNESCO, which reported that the consequences of bullying include school absenteeism or avoiding various school activities. This in turn affects academic achievement and has a negative impact on future education and employment possibilities. Students who are victims of bullying may attain lower grades and have little chance of going on to high grades of education<sup>(12)</sup> Same results were reported by Jackson et al., who declared that the victim of bullying may suffer from serious psychological problems e.g. depression, anxiety disorders, anger, excessive stress, learning helplessness, having a significant drop in school performance, or may commit suicide. In the long term, they may feel a lack of trust, exhibit extreme sensitivity (hypervigilant), insecure, develop a mental illness such as psychopathy, avoidant personality disorder, develop further health challenges, or PTSD.<sup>(27)</sup>

### CONCLUSION AND RECOMMENDATIONS

Bullying behavior was prevalent among early adolescent school students. Male students experienced most bullying behaviors more than female students. Physical bullying was more common among males, while verbal and cyberbullying were more common in female students. Students who were experiencing bullying suffered from many psychological effects that may affect their ordinary lives and attitude toward school.

Family physicians should ask about psychological problems among adolescents during their visits as a part of the routine adolescent anticipatory care and ask for their exposure to bullying practice. The establishment of a bullying prevention committee at schools is highly recommended where all school personnel are involved, as well as parents of the school students and their family physicians. Students should be encouraged to find useful enjoyable activities that promote self-esteem and confidence. Launching awareness programs throughout different mass media and family physicians. Health care providers, and school teachers should intervene and prevent adolescent bullying and help the students to deal effectively with the bullying behaviors they face.

### Limitations of the study

Although the questionnaire was allowed to be completed privately and the data were anonymous, some questions were not clearly answered e.g. exposure to sexual bullying -being a sensitive issue for

both gender. Also, the study was conducted on students from the same residence. It is recommended to be conducted on a wider scale all over Egypt in different rural and urban areas with different cultures.

### CONFLICT OF INTEREST

All authors declare no conflicts of interest.

### FUNDING

This study received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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