

Forms of Bullying among Students in the Medical Sector at Suez Canal University: Prevalence and Impact

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ABSTRACT

KEYWORDS

Bullying,
Medical Sector Students,
Depression,
Anxiety.

Medical students are exposed to multiple external factors during their academic and clinical study that showed to contribute to high levels of depression, anxiety, and stress. Recently, bullying is considered one of these factors. Researchers distinguish several main types of bullying; the most common categories are physical, verbal, indirect, relational, social, sexual, and cyberbullying. We aimed to explore the existence of the bullying act and its psychological impact on medical students' health to help study its impact on the community to increase awareness concerning this major social problem. The study was descriptive cross-sectional conducted on 438 undergraduate volunteer students from both gender; they were recruited from the faculties of Medicine, Pharmacy, Dentistry, Veterinary Medicine, and Nursing from Suez Canal University. A self-administered questionnaire was sent online to students. Students found to be victims of bullying completed other scales to assess the psychological impact of bullying. Most of the students (85.4%) reported being verbally, psychologically, and physically bullied by other students. The greatest proportion (77.4%) of those who reported being bullied by other students said that this happened only once or twice and (31.1%) of participants said that they bullied others. More than two-thirds of participants (72.4%) were among levels of low anxiety; while (21.2%) of the total studied sample had mild depression. We concluded that Bullying is prevalent among medical sector students. The greatest proportion of the total sample was among levels of low anxiety and mild depression whereas the greatest proportion in both scales was among females.

Introduction

Bullying is considered a major public health problem affecting people across all life stages (Mutiso et al., 2019).

Bullying is an intentional, aggressive act carried out by an individual or group of people against a victim who cannot defend himself repeatedly and over time. Bullying is based mainly on an imbalance of power

therefore it is considered a systematic abuse of power (Smith et al., 2016).

Researchers categorized bullying into physical, verbal, indirect, social, relational, and sexual bullying. Physical bullying is in the form of beating, kicking, punching, and damaging belongings. Verbal bullying includes threatening and teasing. These are considered direct bullying (Sanchez et al., 2016).

Indirect bullying is another type of bullying done via a third party. Bullying done to destroy someone's peer relationships is called Relational bullying and the type of bullying done to damage someone's social status or self-esteem is called social bullying. Sexual bullying is unwanted physical contact or abusive comments (Kowalski et al., 2013).

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Over the past ten years, cyberbullying has emerged as a new mode of bullying. It involves the use of electronic venues such as instant messaging, e-mails, chat rooms, websites, online games, social networking sites, and text messaging in bullying (Olweus, 2012; Kowalski et al., 2013).

Regarding gender, males were at greater risk of both offending and victimization. However, gender differences are observed between direct and indirect forms of bullying. Males were more exposed to direct forms of bullying, while females were equally or more likely to experience indirect forms of bullying (Carbone-Lopez et al., 2010).

Bullying is more common among middle school students than among high school students and is more common among Caucasian children than Hispanic or African American children. Children from urban or rural areas are equally exposed to bullying (MacDonald et al., 2010).

Children subjected to traditional bullying reported that they had problems affecting their health, emotional well-being, and academic work (Karatas et al., 2011). It has been also revealed that bullied children develop more stomach pain, sleep problems, headaches, tension, bedwetting, fatigue, and poor appetite than their non-bullied peers (Sampasa-Kanyinga et al., 2014).

Bullying victims and those who bullied others experienced a higher risk for suicidal ideation and behavior. Bullying can be either a direct or indirect cause of suicidal ideation and therefore bullying became an evolving threat to the mental and overall well-being of minors (Alavi et al., 2017).

Medical students were subjected to many factors during their study either

academic or clinical that showed them suffering high levels of depression, anxiety, and stress. Recently, bullying is considered one of these factors. Depression affected nearly one-third of medical students worldwide as indicated by a recent meta-analysis, and the overall prevalence of symptoms diagnostic of depression among medical students was higher than that reported in the general population (Moir et al., 2018).

Due to the lack of publications on the prevalence of bullying among medical sector students in Egypt, we aimed to study the existence of the bullying act and its psychological impact on medical students' health to help study its impact on the community to increase awareness concerning this major social problem.

Subject & Methods:

The study is a cross-sectional, descriptive study.

Subjects:

Volunteered 438 undergraduate medical students from both gender (301 females and 137 males); were recruited from the faculties of Medicine, Pharmacy, Dentistry, Veterinary Medicine, and Nursing from Suez Canal University in the period between June 2020 and December 2020. The study included participant's aged ≥ 21 years. Students who have a history of any previous psychiatric disorders and international students were excluded from the study. The distribution of students in each faculty of the medical sector and their representative percent and number

in the sample size were dependent on the total number of students ≥ 21 years in each faculty.

Sample type:

Simple random sample

Sample size:

The following equation was used for sample size calculation:

$$n = \left[\frac{Z_{\alpha/2}}{E} \right]^2 * P(1 - P)$$

(Dawson, & Trapp, 2004)

Where:

n: the required sample size

Z_{α/2}: 1.96 (The critical value that divides the central 95% of the Z distribution from the 5% in the tail)

P = 52% prevalence of undergraduate medical students experiencing any form of bullying (Ahmer et al., 2008).

E = 5% margin of error

According to the previous data, 424 participants were required. When we stopped the online questionnaire 438 students had participated in our study where 301 were females and 137 were males.

Data collection:

The participants were given a self-administered Questionnaire based on (Olweus Bully/Victim Questionnaire) modified and translated into Arabic by the researcher (Olweus, 2012). The questionnaire was carried out online due to COVID – 19 virus pandemic and the lockdown of faculties and the difficulty to contact students at the time of our study. The questionnaire was sent to the

third and fourth-year students of the faculty of Nursing; third, fourth, and fifth-year students of the faculty of Dentistry, Pharmacy, and Veterinary Medicine; third, fourth-, fifth- and sixth-year students of the faculty of Medicine.

The questionnaire included socio-demographic data and then was branched into two parts; the first part included questions about being bullied and the second had questions about perpetrating bullying. Students found to be victims of bullying completed other scales to assess the suspected consequences and the impact of bullying on students' psychological health (measures of depression and anxiety).

Measures:

Symptoms of anxiety were measured using the Beck Youth Anxiety Scale (BAI-Y): consisting of 20 items symptomatic of anxiety (Ahmer et al., 2008).

Symptoms of depression were measured using the Beck Youth Depression Scale (BDI-Y): which consists of 21 symptoms characteristic of depression (Karatat et al., 2011, Cooper et al., 2012).

For both the BAI-Y and the BDI-Y, each student who reported bullying or being bullied marked how often they had any of the symptoms of depression or anxiety using a 4-point scale. By the end of the questionnaire, we added up the score for each of the questions by counting the number to the right of each marked question to interpret the depression and anxiety scale.

The researcher used the English and Arabic versions of these 2 scales with their proven validity and reliability. A reliability test was performed on 42 students (representing 10% of the sample size) who

were; interviewed using the study's questionnaire then an internal homogeneity analysis was done to detect the reliability of the questionnaire (Olweus and Limber, 2010).

Statistical analysis:

IBM SPSS software package version 20.0 was used for data analysis. Mean and standard deviation (SD) were used for quantitative variables, and frequencies and percentages were used for qualitative variables. For categorical variables, we used Chi-square test and Monte Carlo correction was used as a correction for chi-square when more than 20% of the cells have an expected count of less than 5. the p-value of (< 0.05) was considered statistically significant.

Ethical considerations:

Approval was obtained from the Research Ethics committee of the faculty of Medicine at Suez Canal University before starting fieldwork and REC waived the documentation of the informed consent. The reference number of ethical clearance was: (4002#). Approvals were taken from the Deans and Vice Deans of the five faculties (Medicine, Pharmacy, Veterinary, Dentistry, and Nursing) to conduct an online questionnaire on the volunteered students. Students who completed the online questionnaire and completed all the research scales were considered consenting to participate in the study.

Results:

Out of the 438 undergraduate students who were recruited in the study; 130 students from the faculty of Medicine; 92 from the faculty of Pharmacy; 83 from the faculty of Dentistry; 59 from the faculty of Veterinary Medicine and 74 from the faculty of Nursing participated in the study.

The socio-demographic characteristics of participants are presented in table (1). The majority of the studied students (96.6%) were between the age of (21-25), where females represented (66.2%) and males (30.4%) of this age group from the total population. Participants from the Faculty of Medicine represented (29.7%) of the total sample while the least was (13.5%) from the Faculty of Veterinary Medicine. Fifth-year students represented (32.2%) of the total sample while the female students represented (26%) of the sample. (79.2%) of participants were from urban residences. A statistically significant relationship ($p \leq 0.05$) was found between gender & academic year.

The present results showed that (85.4%) of the students reported being bullied by other students in the past couple of months where (59.4%) were females and (26%) were males. The greatest proportion (77.4%) of those who reported being bullied by other students said that this happened only once or twice in the last couple of months and the least proportion (1.6%) said that this happened only once a week. No statistically significant relationship was found between gender and being bullied by other students at college in the past couple of months (Table 2).

The minority of participants (31.1%) said that they bullied other students in the past

couple of months whereas females (19.4%) and males (11.6%), the greatest proportion of those who reported bullying others said that this only happened once or twice (27.2%) and the least proportion (0.9%) said that this happened 2 or 3 times a month. A statistically significant relationship ($p \leq 0.05$) was found between gender and frequency of being involved in bullying other students in the past couple of months (Table 3).

According to being bullied by other students in different faculties: it was found that (24%) of students who reported being bullied were from the Faculty of Medicine whereas (21.9%) of them said that this happened only once or twice. The least portion (12.6%) of the studied sample who reported being bullied was from the Faculty of Veterinary Medicine. A statistically significant relationship ($p \leq 0.05$) was found between faculty and being bullied at college in the past couple of months (Table 4).

The distribution of the studied students involved in bullying other students between different faculties is labeled in table (5). Among those who had taken part in bullying other students at college in the past couple of months, (8.2%) were from the Faculty of Medicine, were (7.3%) of them said that this happened only once or twice and (5%) of the studied population was found equally among students from faculty of Nursing and Veterinary Medicine. No statistically significant relationship was found between faculties and being involved in bullying other students at college in the past couple of months.

As for the suspected consequences of bullying, results showed that (34.2%) of students reported being sometimes afraid of

being bullied by other students while (26.5%) were females and (7.8%) were males. About (3.9%) of the studied sample said that they tried to avoid college by pretending to be sick only once or twice (2.5% females and 1.4% males). Meanwhile, (21%) of the studied sample said that they sometimes had vivid memories or flashbacks of bullying events causing them distress where (15.3% female students and 5.7% male students). A statistically significant relationship ($p \leq 0.05$) was found between gender and being afraid of being bullied by other students at college. An (8.4%) said that they did not often have dreams or nightmares about the bullying events where (5.7%) were females and (2.7%) were males. A 10.3% of the studied sample said that they did not often feel like reliving the bullying events again (7.1% females and 3.2% males). A 19.4% of the studied sample said that they sometimes felt distressed in situations that remind them of the bullying events where (13.5%) were females and (5.9%) were males. Meanwhile, (8%) of the studied sample said that they had suicidal ideations only once in the past couple of months, (5.7%) of the studied sample had suicidal ideations more than once (3.4% females and 2.3% males). A statistically significant relationship ($p \leq 0.05$) was found between gender and being afraid of being bullied by other students at college (Table 6).

The different types of bullying between both genders as victims: verbal, and relational bullying were the most prevalent among males while social bullying was the most prevalent among females. There was a statistically significant relationship ($p \leq 0.05$) between verbal, and relational bullying and gender (Table 7).

The different types of bullying between both genders as bullies: Verbal bullying was the most prevalent among both males and females. A statistically significant relationship ($p \leq 0.05$) was found between physical, and social bullying and gender (Table 8).

In the interpretation of the beck youth depression scale (21.2%) had mild depression whereas (14.2%) were females and (7.1%) were males. About (2.7%) of the total sample were found among the extreme level of the

Beck Youth Depression Scale where (1.1%) were males and (1.6%) were females. In the interpretation of the beck youth anxiety scale, the greatest proportion of the total sample (72.4%) was among the level of low anxiety where (47.5%) was among females and (24.9%) was among males. A statistically significant relationship ($p \leq 0.05$) was found between gender and levels of interpretation of beck youth anxiety scales (Table 9).

Table (1): Descriptive data of the studied students according to socio-demographic data (n = 438)

Socio-Demographic Data	Total sample (n = 438)		Gender				p-value
	Frequency	%	Male n	%	Female n	%	
Age groups (years)							
(21-25)	423	96.6	133	30.4	290	66.2	
(>25 – <30)	12	2.7	2	0.5	10	2.3	@ 0.22
(≥ 30)	3	0.7	2	0.5	1	0.2	
Faculty							
Medicine	130	29.7	42	9.6	88	20.1	
Pharmacy	92	21.0	29	6.6	63	14.4	
Dentistry	83	18.9	26	5.9	57	13.0	# 0.87
Veterinary Medicine	59	13.5	15	3.4	44	10.0	
Nursing	74	16.9	25	5.7	49	11.2	
Academic year							
Third year	104	23.7	50	11.4	54	12.3	
Fourth-year	133	30.4	46	10.5	87	19.9	# <0.001*
Fifth year	141	32.2	27	6.2	114	26.0	
Sixth year	60	13.7	14	3.2	46	10.5	
Residence							
Rural	91	20.8	31	7.1	60	13.7	# 0.52
Urban	347	79.2	106	24.2	241	55.0	

Chi-square test, @ Monte Carlo correction, * Statistically significant at $p \leq 0.05$, n: number

Table (2): Descriptive data of the studied students according to being bullied by other students in both genders using Olweus/Bully Victim questionnaire (n = 438)

About being bullied by other students	Total sample (n = 438)		Gender				p-value
	n	%	Male		Female		
			n	%	n	%	
Have you been bullied at college in the past few months?							
• No	64	14.6	23	5.3	41	9.4	# 0.384
• Yes	374	85.4	114	26.0	260	59.4	
If yes: how often have you been bullied at college in the past few months?							
• It has happened once or twice	339	77.4	103	23.5	236	53.9	@ 0.064
• 2 or 3 times a month	18	4.1	2	0.5	16	3.7	
• Once a week	7	1.6	3	0.7	4	0.9	
• Several times a week	10	2.3	6	1.4	4	0.9	

Chi-square test, @ Monte Carlo correction, * Statistically significant at $p \leq 0.05$, n: number.

Table (3): Descriptive data of the studied students according to bullying other students in both genders using Olweus/Bully Victim Questionnaire (n = 438)

About bullying other students	Total sample (n = 438)		Gender				p-value
	n	%	Male		Female		
			n	%	n	%	
Have you ever taken part in bullying another student at college in the past few months?							
• No	302	68.9	86	19.6	216	49.3	# 0.059
• Yes	136	31.1	51	11.6	85	19.4	
If yes: How often have you taken part in bullying another student at college in the past few months?							
• It has only happened once or twice	119	27.2	41	9.4	78	17.8	
• 2 or 3 times a month	4	0.9	1	0.2	3	0.7	@ 0.007*
• About once a week	5	1.1	2	0.5	3	0.7	
• Several times a week	8	1.8	7	1.6	1	0.2	

Chi-square test, @ Monte Carlo correction, * Statistically significant at $p \leq 0.05$, n: number

Table (4): Descriptive data of the studied students according to being bullied by other students between different faculties (n = 438)

About being bullied by other students	Faculty(n=438)										p-value
	Medicine		Pharmacy		Dentistry		Veterinary Medicine		Nursing		
	n	%	n	%	n	%	n	%	n	%	
Have you been bullied at college in the past few months?											
• No	25	5.7	9	2.1	9	2.1	4	0.9	17	3.9	# 0.02*
• Yes	105	24.0	83	18.9	74	16.9	55	12.6	57	13.0	
If yes: how often have you been bullied at college in the past few months?											
• It has happened once or twice	96	21.9	78	17.8	69	15.8	50	11.4	46	10.5	
• 2 or 3 times a month	5	1.1	2	0.5	3	0.7	3	0.7	5	1.1	@ 0.11
• Once a week	1	0.2	1	0.2	1	0.2	1	0.2	3	0.7	
• Several times a week	3	0.7	2	0.5	1	0.2	1	0.2	3	0.7	

Chi-square test, @ Monte Carlo correction, * Statistically significant at $p \leq 0.05$, n: number

Table (5): Descriptive data of the studied students according to bullying of other students between different faculties (n = 438)

About bullying other students	Faculty (n=438)										p-value
	Medicine		Pharmacy		Dentistry		Veterinary Medicine		Nursing		
	n.	%	n	%	n	%	n	%	n	%	
Have you taken part in bullying another student at college in the past few months?											
• No	94	21.5	66	15.1	53	12.1	37	8.4	52	11.9	# 0.53
• Yes	36	8.2	26	5.9	30	6.8	22	5.0	22	5.0	
If yes: How often have you taken part in bullying another student at college in the past few months?											
• It has only happened once or twice	32	7.3	23	5.3	27	6.2	20	4.6	17	3.9	
• 2 or 3 times a month	1	0.2	0	0.0	0	0.0	1	0.2	2	0.5	@ 0.59
• About once a week	2	0.5	2	0.5	0	0.0	0	0.0	1	0.2	
• Several times a week	1	0.2	1	0.2	3	0.7	1	0.2	2	0.5	

Chi-square test, @ Monte Carlo correction, * Statistically significant at $p \leq 0.05$, n: number

Table (6): Descriptive data of the studied students according to the suspected consequences of bullying (n = 438)

	Total sample (n = 438)		Gender				p-value
	n	%	Male		Female		
	n	%	n	%	n	%	
How often are you afraid of being bullied by other students in your college?							
Never	106	24.2	48	11.0	58	13.2	# 0.002*
Seldom	37	8.4	14	3.2	23	5.3	
Sometimes	150	34.2	34	7.8	116	26.5	
Fairly often	74	16.9	21	4.8	53	12.1	
Often	39	8.9	8	1.8	31	7.1	
Very often	32	7.3	12	2.7	20	4.6	
How often did you try to avoid college by pretending to be sick because you were being bullied?							
I wasn't bullied at college	278	63.5	85	19.4	193	44.1	# 0.954
Never	120	27.4	40	9.1	80	18.3	
Only once or twice	17	3.9	6	1.4	11	2.5	
Sometimes	12	2.7	4	0.9	8	1.8	
Maybe once a week	2	0.5	0	0.0	2	0.5	
Several times a week	9	2.1	2	0.5	7	1.6	
Do you have vivid memories or flashbacks of bullying events that keep coming back causing you distress?							
No, Never	237	54.1	80	18.3	157	35.8	# 0.789
Not often	71	16.2	21	4.8	50	11.4	
Sometimes	92	21.0	25	5.7	67	15.3	
Often	19	4.3	6	1.4	13	3.0	
Always	19	4.3	5	1.1	14	3.2	
Do you have dreams or nightmares about the bullying events?							
No, Never	354	80.8	113	25.8	241	55.0	@ 0.960
Not often	37	8.4	12	2.7	25	5.7	
Sometimes	35	8.0	9	2.1	26	5.9	
Often	5	1.1	1	0.2	4	0.9	
Always	7	1.6	2	0.5	5	1.1	
Do you ever feel like you are reliving the bullying events again?							
No, Never	335	76.5	108	24.7	227	51.8	@ 0.599
Not often	45	10.3	14	3.2	31	7.1	
Sometimes	40	9.1	9	2.1	31	7.1	
Often	12	2.7	3	0.7	9	2.1	
Always	6	1.4	3	0.7	3	0.7	
Do you ever feel distressed in situations that remind you of bullying events?							
No, Never	248	56.6	83	18.9	165	37.7	# 0.290
Not often	47	10.7	10	2.3	37	8.4	
Sometimes	85	19.4	26	5.9	59	13.5	
Often	31	7.1	7	1.6	24	5.5	
Always	27	6.2	11	2.5	16	3.7	
Do you have any suicidal ideations in the past couple of months?							
No, Never	378	86.3	117	26.7	260	59.4	# 0.603
Yes, once	35	8.0	10	2.3	25	5.7	
Yes, more than once	25	5.7	10	2.3	15	3.4	

Chi-square test, @ Monte Carlo correction, *Statistically significant at $p \leq 0.05$, n: number

Table (7): Descriptive analysis of the studied students as victims according to the different types of bullying between both genders (n =438)

Victims	Total sample		Gender				p-value
	(n = 438)		Male		Female		
	n	%	n	%	n	%	
Physical Bullying	33	7.5	13	2.9	20	4.5	0.410
Verbal Bullying	113	25.8	47	10.7	66	15.0	0.012*
Social Bullying	142	32.4	42	9.5	100	22.8	0.740
Relational Bullying	105	24.0	47	10.7	58	13.2	0.030*
Sexual Bullying	49	11.2	21	4.7	28	6.3	0.162
Cyber Bullying	43	9.8	10	2.2	33	7.5	0.538

Chi-square test, * Statistically significant at $p \leq 0.05$, n: number

Table (8): Descriptive analysis of the studied students as bullies according to the different types of bullying between both genders (n = 438)

Bullies	Total sample		Gender				p-value
	(n = 438)		Male		Female		
	n	%	n	%	n	%	
Physical Bullying	33	7.5	18	4.1	15	3.4	0.021*
Verbal Bullying	421	96.1	130	29.6	291	66.4	0.501
Social Bullying	31	7.1	16	3.6	15	3.4	0.003*
Relational Bullying	32	7.3	14	3.1	18	4.1	0.405
Sexual Bullying	16	3.7	8	1.8	8	1.8	0.070
Cyber Bullying	13	3.0	7	1.5	6	1.3	0.150

Chi-square test, * Statistically significant at $p \leq 0.05$, n: number

Table (9): Descriptive analysis of the studied students according to the levels of interpretation of beck youth anxiety and depression scales between both sexes (n =438)

Interpretation of Beck Youth	Total sample		Gender				p-value	
	(n = 438)		Male		Female			
	n	%	n	%	n	%		
Interpretation of Beck Youth Anxiety scale	Low anxiety (0-21)	317	72.4	109	24.9	208	47.5	0.041*
	Moderate anxiety (22-35)	79	18.0	21	4.8	58	13.2	
	Potentially concerning levels of anxiety (\Rightarrow 36)	42	9.6	7	1.6	35	8.0	
Interpretation of Beck Youth depression scale	Normal (1-10)	186	42.5	58	13.2	128	29.2	0.649
	Mild (11-16)	93	21.2	31	7.1	62	14.2	
	Borderline (17-20)	44	10.0	11	2.5	33	7.5	
	Moderate (21-30)	61	13.9	22	5.0	39	8.9	
	Severe (31-40)	42	9.6	10	2.3	32	7.3	
	Extreme (over 40)	12	2.7	5	1.1	7	1.6	

Chi-square test, * Statistically significant at $p \leq 0.05$, n: number

Discussion:

Bullying is the deliberate systematic abuse of power that occurred through repeated verbal, physical, and/or social behavior that intends to cause physical and/or psychological harm (Smith et al., 2016). Bullying is an aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners, which involves an observed imbalance of power that occurred repeatedly (Rezapour et al., 2019).

Bullying is a common phenomenon but there is a lack of publications on the prevalence of bullying among medical sector students in Egypt. Our study aimed to assess the existence of bullying act among medical sector students in Suez Canal University and studied its psychological impact on students' health to help study bullying impact on the community to avoid it and to increase awareness concerning this major social problem.

In the present study 438 undergraduate medical students participated where (32.2%) of the studied sample were found among fifth-year students, (30.4%) were among fourth-year students, (23.7%) were among third year and (13.7%) were among sixth-year students. Contradicting Elghazzaly et al. (2021) study where the greatest number of participants was among fourth-year students (57.6%), (22.1%) participants were among fifth-year students, and (20.3%) were sixth-year students.

In the current study, the prevalence of bullying among medical sector students in Suez Canal University was (85.4%) reported being bullied and (31.1%) reported bullying other students. This high percentage was due to the privacy of the online questionnaire, which helped students to admit their problems.

Study results were in accordance with Galal et al. (2019) study of bullying among

preparatory and secondary school students in rural Egypt with a percentage of (77.8%) among the studied population. Also, results were in accordance with those found in Elghazzaly et al. (2021) study among undergraduate medical students at Tanta university during the period between the first of October 2018 to the end of May 2019 where (71.1%) of the studied population faced bullying during their medical study.

Results of the current study were contradicting Alzahrani et al. (2012) in Saudi medical schools where more than one quarter (28.0%) of students have been exposed to any form of bullying during their clinical rotations. This may be due to the surrounding culture and religious rules preventing violence and bullying in their society.

In the current study, 85.4% of the studied sample reported being bullied by other students, of which (59.4%) were females and (26%) were males because females expressed their feelings and figured out being subject to bullying than males who found it a kind of a shame to report being bullied (Viljoen et al., 2005). These results were matched with Elghazzaly et al. (2021) where (40%) were males and (60%) were females. Also, the results were in accordance with Mukhtar et al. (2010) study where (70%) of bullied students were females. Contradicting Alzahrani et al. (2012) study where males experienced bullying more than females. This discrepancy of results regarding forms of bullying in their studies.

The study results regarding victims of bullying from verbal, relational, and social bullying were matching with Elghazzaly et al. (2021) study which showed that male students as victims of bullying faced more verbal and behavioral forms of bullying than females. Cultural and educational background created these differences and reflected that male students in Egypt could also complain of

bullying like female students. These results were in contradiction with Topcu et al. (2012) study which showed a large representation of males for physical victimization and that being bullied physically is 3.5 times higher for males than for females.

Also, Contradicting Topcu et al. (2012) study results which displayed a disproportionately large representation of males as bullies for relational bullying. Also, the study results were in Contradiction with those of Snell et al. (2010) study that showed significantly more females reporting being bullied by being touched or grabbed sexually and by unwanted sexual comments or jokes. This may be due to the underreporting of males of sexual bullying either as victims or bullies as they consider it a shame (Viljoen et al., 2005). Differences between results among males and females regarding reporting of bullying might be explained as bullying behavior and aggression have different meanings for males and females, concerning their psychological development and from their same-sex peer group during early adolescence (Jaradat et al., 2017).

The study results regarding negative consequences of bullying were matching with Grinshteyn et al. (2017) study where the vast majority of the sample (93%) never missed school in the previous month due to feeling unsafe while in the past month, (4%) missed one day due to the feeling of being unsafe at school, (2%) missed 2 to 3 days and (1.65%) missed 4 or more days due to feeling unsafe. The study results were in contradiction with those of the National center for education statistics in the USA study (2022). Where only 4.1% of students have never been bullied and missed school because of safety concerns. Students who experienced both types of bullying (cyber and non-cyber bullying) were more likely to miss school because of safety concerns than those students who had never

been bullied as they tried to avoid any situation that could repeat the bullying event.

In the present study, results related to suicidal ideations were matching with Klomek et al. (2013) study which found that females who bullied others frequently were more subjected to depression and suicidal attempts compared to males. Many of the teenagers who experienced suicidal attempts after being bullied had other emotional and social issues in their lives. Bullying caused instability and hopelessness in adolescents' minds facing stressful life circumstances and that is why suicidal ideations were higher in females as they were more emotional than males (Hinduja and Patchin, 2010).

In the current study, results related to scores of depression and anxiety were matching with Kowalski et al. (2013) study, which showed that females reported more anxiety than males who were both cyber-bullies. Females were more prone to psychological disturbances due to being exposed to various hormonal changes during their life and this made them more prone to depression (Rezapour et al., 2019).

In the present study, in the interpretation of the beck youth depression scale results were matching with Beckman et al. (2012) study which used the beck depression inventory and found that (11%) of the girls and (6%) of the boys were classed as being moderate to severely depressed.

There were many reasons for varying prevalence rates in different studies. Apart from real differences in bullying prevalence among students from different countries, cultural differences and different definitions of bullying among the targeted population were considered. Methodological differences made it difficult to find studies contradicting our results among the same target population.

Conclusion:

Bullying is prevalent among medical sector students. As victims; verbal and relational bullying was most prevalent among males while social bullying was the most prevalent among females. While as bullies; verbal bullying was most prevalent among both males and females. According to the interpretation of Beck's youth depression and anxiety scales, the greatest proportion of the total sample was among levels of low anxiety and mild depression whereas the greatest proportion in both scales was among females.

Conflict of interest:

The authors declare no conflict of interest with any financial or non-financial matters in the subject or material discussed in this research.

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أشكال التنمر بين طلاب القطاع الطبي بجامعة قناة السويس: معدل الانتشار والآثار

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يتعرض طلاب الكليات الطبية لعوامل خارجية متعددة أثناء دراستهم الأكاديمية والسريرية والتي أظهرت أنها تساهم في مستويات عالية من الاكتئاب والقلق والتوتر. في الآونة الأخيرة، يعتبر التنمر أحد هذه العوامل وقد عدد الباحثون عدة أنواع رئيسية من التنمر؛ وهى الفئات الأكثر شيوعاً ومنها التنمر الجسدي، اللفظي، الغير مباشر، العلاقي، الاجتماعي، الجنسي والتنمر الإلكتروني. تهدف الدراسة الى استكشاف وجود فعل التنمر وتأثيره النفسي على صحة طلاب الكليات الطبية للمساعدة في دراسة تأثيره على المجتمع لزيادة الوعي بشأن هذه المشكلة الاجتماعية الكبرى. كانت الدراسة مقطعية وصفية أجريت على ٤٣٨ طالباً جامعياً متطوعاً من كلا الجنسين من كليات الطب والصيدلة وطب الأسنان والطب البيطري والتمريض من جامعة قناة السويس. تم إرسال استبيان عبر الإنترنت إلى الطلاب والطلاب الذين هم ضحايا التنمر أكملوا مقاييس أخرى لتقييم الأثر النفسي للتنمر. وقد أفاد معظم الطلاب (٨٥,٤٪) أنهم تعرضوا للتنمر من قبل طلاب آخرين في الشهرين الماضيين. ووجد ان النسبة الأكبر (٧٧,٤٪) ممن أفادوا أنهم تعرضوا للتنمر من قبل طلاب آخرين قد تعرضوا له مرة واحدة أو مرتين فقط، وقال (٣١,١٪) من المشاركين إنهم مارسوا التنمر على الطلاب الآخرين في الشهرين الماضيين. وأولئك الذين أبلغوا عن التنمر على الآخرين قالوا إن هذا حدث مرة واحدة أو مرتين فقط (٢٧,٢٪) وقد وجد أن أكثر من ثلثي المشاركين (٧٢,٤٪) كانوا من بين مستوى منخفض من القلق مع وجود علاقة ذات دلالة إحصائية بين الجنس ومستويات تفسير مقاييس القلق لدى الشباب؛ بينما كان (٢١,٢٪) من إجمالي العينة المدروسة يعانون من اكتئاب خفيف. مما أثبت ان التنمر منتشر بين طلاب القطاع الطبي و وفقاً لمقاييس القلق والاكتئاب لدى الشباب، كانت النسبة الأكبر من العينة الإجمالية من بين مستويات القلق المنخفض والاكتئاب الخفيف حيث كانت النسبة الأكبر في كلا المقياسين بين الإناث.