Cyberbullying Victimization among Middle School Students in Aljouf Region, Saudi Arabia

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Abstract

Introduction: Teenagers' widespread adoption of online and social media forms of communication has brought with it a new set of problems, including cyberbullying. The victim, their loved ones, their school, and their community can all suffer irreparable harm as a result of cyberbullying. While numerous studies have detailed the harmful impacts of cyberbullying, very few have investigated its prevalence, different manifestations, and related factors in Saudi Arabia. The current research aims to assess the extent of cyberbullying and the factors that contribute to its occurrence among middle school students in Sakaka, Al-Jouf region, Saudi Arabia. Methods: For this cross-sectional survey, 410 adolescents aged 12 to 16 from various middle schools filled out an online electronic questionnaire. Results and conclusions: Nearly a third (30.5%) of the participants reported being bullied online; Snapchat was the most common medium for this type of harassment (26.1%). Cyberbullying victims were more likely to be male, older, from lower socioeconomic backgrounds, and heavy Internet users. According to the results of the current research, middle school adolescents are more vulnerable to becoming victims of cyberbullying. To lessen the risk of children being bullies or bullied, it is crucial to have a consistent national policy that provides students with protective training.

Key Words: cyberbullying, victimization, middle school, students, Saudi Arabia

Introduction

Not only are childhood and adolescence times of growth, but they are also times of first experiences with taking risks. During these times, young people are especially susceptible to harm because they lack the capacity to fully comprehend the connection between their actions and the outcomes of those actions. Children and adolescents typically perform worse than adults when they are required to maintain self-discipline in order to achieve good results in unfamiliar situations. This is because children and adolescents are more susceptible to the pressures of peers and the intensity of passion. Teenagers are more likely to risk rejecting standardized risk interventions than adults because of their impulsivity, desire for sensation and thrill, and other individual differences (Aizenkot & Kashy-Rosenbaum, 2021).

Children and adolescents younger than 18 years old make up approximately one-third of all Internet users around the world. A new method of interpersonal communication has been made possible by digital technology. However, polls and publications in the press demonstrate that there is also another picture in the age of the Internet. The use of the internet by children and teenagers brings with it the risk that they will engage in cyberbullying or become victims of it themselves. The term "cyberbullying" can also be used to refer to this behavior. to definition the term "cyberbullying" refers to any form of bullying that is carried out through the use of electronic media. To be more specific, when it comes to children and teenagers, cyberbullying may be defined as the purposeful and repetitive infliction of harm by one or more classmates that takes place in cyberspace and is brought about by the utilization of computers, smartphones, and other technologies. In recent years, additional behaviors associated with cyberbullying have evolved. These behaviors include cyberstalking and the abusive use of online dating sites (Khine, et al., 2020).

In spite of the fact that research on cyberbullying is still in its infancy, the problem of cyberbullying among adolescents is recognized as a significant threat to public health because of its strong connection to the behavior, mental health, and development of adolescents. The majority of children and adolescents will, at some point in their lives, be a victim of cyberbullying or another form of victimization that takes place online. This problem has been made worse by the growing rate of Internet adoption around the world and the popularity of social media platforms among young people. In virtual contexts, bullies are freed from the constraints of location and time, which results in the creation of new venues for cyberbullying that are unrestricted by geographic borders. The invasion of young people's personal privacy and the development of psychiatric illnesses are two of the many harmful outcomes that can be attributed to the practise of cyberbullying (Antoniadou, Kokkinos, & Fanti, 2019). The perpetrators of cyberbullying can remain anonymous and quickly communicate with children and teenagers at any time, which may contribute to the fact that the effects of cyberbullying are more detrimental than those of traditional bullying. Those who are bullied online exhibit significantly higher levels of sadness, anxiety, and loneliness than victims of traditional forms of bullying. It has also been demonstrated that there is a connection between low self-esteem and being away from school because of cyberbullying (Antoniadou, Kokkinos, & Fanti, 2019).

The internet has been the most significant technological advancement of the last few decades, ushering in wholly novel means of human interaction and community building. This is because of its core properties, which include its adaptability and ease of use (Peled, 2019). On the other hand, the ease of modern communication can lead to unsafe and unwanted actions. It's not unexpected that young people today would go to the internet and social media in order to damage, harass, threaten, shame, or otherwise attack another person. One well-known type

of such harmful or destructive behavior is cyberbullying, which represents a departure from more conventional forms of bullying in favour of its online counterpart (Abaido, 2020; Peled, 2019).

Several scholars have proposed different definitions of cyberbullying. Repetitive acts of internet harassment, intimidation, and/or damage against an individual or group are what we call "cyberbullying" (Olenik-Shemesh & Heiman, 2017). Cyberbullying can refer to any form of hostile behaviour directed towards a specific individual that is carried out via electronic means. By definition, cyberbullying is a sort of online harassment that takes place in online communities like social media or online gaming forums, where victims might be exposed to the objectionable content and possibly spread it further. Some persons (Perpetrator) post negative, damaging, or false information about another person (Victim) on various internet platforms with the goal to shame, threaten, aggravate, or publicly humiliate that person online (Hellfeldt, López-Romero & Andershed, 2019; Kumar & Goldstein, 2020). The victim's lack of physical proximity to the bully, the ease with which cyberbullying can be engaged in, the widespread use of smartphones, the large size of the cyberbullying community, the permanence of online bullying displays, and the short amount of time it takes all contribute to the devastating effects of cyberbullying (Englander, Donne stein, Kowalski, Lin, & Parti, 2017; Selkie, Fales, & Moreno, 2016).

In the same ways that conventional bullying is aggressive behaviour between people in an unequal power relationship that happens repeatedly, so too does cyberbullying (Abaido, 2020; Olweus & Limber, 2018; Chu et al., 2019). However, there is a clear and positive correlation between any form of cyberbullying and any form of traditional bullying (AlQudah et al., 2020; Kowalski, Giumetti, Schroeder, & Lattanner, 2014).

Seven distinct forms of cyberbullying are identified by Watts et al. (2017): flame, online harassment, cyberstalking, denigration, masquerade, dishonesty and outing, and exclusion. Online harassment is the repeated sending of offensive messages, and cyberstalking extends online harassment by sending threatening or intimidating messages. Flaming is the use of angry, nasty, and vulgar language in electronic communications, either privately or publicly, about a person via text or email. When a cyberbully spreads false or malicious rumors about a person to other people, they engage in denigration (putdowns). To masquerade is to assume the persona of another person for the purpose of spreading or distributing information that discredits or threatens that person. When a cyberbully reveals private, embarrassing, or sensitive information about an individual to others, this is known as trickery or outing. Deliberately leaving members of an online community out in the cold is known as "exclusion," and it carries with it an immediate and negative stigma. The most common and widespread forms of cyberbullying involved the use of electronic communication channels such as email, IM, chat rooms, texting, and social networking sites (Peled, 2019). Kowalski, Limber, & McCord (2019) report that the most common forms of cyberbullying committed against college students occur via email and text message.

A child's mental, physical, and social well-being, as well as their academic performance, are all at risk from cyberbullying. The symptoms include a lack of confidence, emotional turmoil (including rage, anxiety, and despair), behavioral issues (including school avoidance, violence, and bad grades), and academic struggles (Zhu, Huang, Evans, & Zhang, 2021; Akcil, 2018). Troll and cyberbullying victims are more likely to engage in problematic behaviors and consider or try suicide than their non-exposed schoolmates (Rose & Tynes, 2015).

Multiple studies have shown that cyberbullying is a serious problem among today's school-aged youth. Victimization rates for cyberbullying vary by social network; for example, middle school students in Israel (Aizenkot & Kashy-Rosenbaum, 2021) and Chinese adolescents (44%) are more likely to report being victims than high school students everywhere else (Rao et al., 2019). An in-depth study conducted on cyberbullying among American middle and high school students aged 10–19 in 2015 found that between 3 and 72% of pupils had been bullied online (Selkie et al., 2016). Students in Turkey's secondary schools experienced 17% cyberbullying in 2014. (Eyuboglu et al., 2021).

The academic community in Saudi Arabia has just recently begun to focus on the issue of cyberbullying (Al Qudah et al., 2020). Reuters (2012) found that, worldwide, the rate of cyberbullying rose from 18% to roughly 27% between 2011 and 2012. Arab youth are usually victimized by bullying in silence, yet this issue receives less attention in economically disadvantaged countries like Saudi Arabia due to societal and cultural restraints.

In the context of puberty, middle school students fall in between the beginning and the middle stages. This demographic information is crucial for some cultural reasons, and it may provide new insights into the cyberbullying recorded in the wider literature, despite the paucity of data on cyberbullying among early and middle adolescents. Research into cyberbullying has the potential to significantly lessen the prevalence of mental health problems in young people and to prevent psychiatric and socioeconomic issues in young adulthood. In light of this, the purpose of the current study is to investigate the extent to which cyberbullying occurs among middle school children and the factors that contribute to its prevalence.

Research questions:
(1)   What is the prevalence of cyberbullying among middle school students?
(2)   What are the most common cyberbullying methods among victims of middle school students?
(3)   Is there a relationship between cyberbullying and victims' sociodemographic variables?

Material and Methods

2.1 Research design
Utilizing a cross-sectional study design and data were collected via Google drive questionnaire.

2.2 Participants and setting
Students in seventh, eighth, and ninth grades from the 2021-2022 school year's second semester (February-April) took part in the research. Any student who could prove they had access to a smartphone and the internet was considered for participation. Using the Raosoft (2004) sample size calculator, we estimated that there were 10,781 male and female middle school pupils attending 83 public and private schools, and hence needed a sample size of 373. Given the low response rate and incomplete surveys, a sample of 410 students was chosen.

2.3 Instruments
2.3.1 Sociodemographic characteristics
This section investigated the sociodemographic characteristics of the participants (age, gender, educational level, academic performance, and household income). This section was also used to collect data on participants' average daily Internet usage.

2.3.2 Cyberbullying Scale

High school and university students' experiences with cyberbullying were measured with a scale created by El-Shenawy (2014). There are a total of 26 issues, split into 5 groups: ridicule and threats (5 things), invasion of privacy (5 items), exclusion from group activities (5 items), and sexual harassment (3 items). A score of 1 indicates strong disagreement, while a score of 5 indicates strong agreement on a 5-point Likert scale. By analyzing correlation coefficients for the five aspects of cyberbullying, the original study established the scale's internal consistency. They varied from 0.74 to 0.93. Cronbach's Alpha, a measure of scale reliability, was calculated to be 0.888 for this study. Respondents who engage in cyberbullying were identified by setting a threshold at 91 out of 130 (or 70%) (Al Qudah et al., 2020).

2.4 Data collection

From the list of schools, five were chosen at random, and then the project's aim was explained to the school's administration and teachers in order to gain student participation. Over the internet, an electronic survey was administered. Principals at participating schools received the link via email and distributed it to their children after obtaining parental consent. All data were transmitted and stored in a password-protected SPSS file (SPSS version 20; IBM Corp.) on the first author's laptop. For privacy reasons, we encrypted the participants' personal information, including their demographic data. The authors used a secure Google Drive account to keep and handle all of the submitted surveys (Google, Inc.).

2.5 Data analysis

In order to tabulate and analyses the collected data, version 20 of Statistical Package for the Social Sciences (SPSS- IBM Corporation, Armonk, NY, USA) was used. The data were analyzed for consistency using Cronbach's alpha. It was determined that the distribution was really normal by means of the Kolmogorov-Smirnov test. For the qualitative information provided, numbers and percentages were provided as descriptions. Quantification was performed using measures such as the mean, standard deviation, and median. Spearman correlation coefficients were used to find the degree of similarity between the two sets of non-normally distributed quantitative data. Since many types of quantitative data are not normally distributed, the Mann-Whitney test was created to allow for cross-category comparisons. Multiple regression analysis was used to identify the most important/independent component in relation to cyberbullying. The significance level was set at P 0.05.

2.6 Ethical consideration

The current research proposal was accepted by both the Ministry of Education and the Vice Rectorate for Graduate Studies and Scientific Research. Electronic informed consent was requested and shown on the first page of the online survey. Electronic notice was given to all participants stressing that their participation was voluntary and that they might end their involvement at any time. In addition, the authors' contact information was included in the questionnaire so that students and/or their guardians could reach out to them with questions concerning schoolwork. By completing and submitting the questionnaire, the students gave their informed agreement to participate and secure the privacy and confidentiality of the data.

Results

Table 1 show that the average age of the participants was 13.94 ±1.38 years old, and that more than half of them were male (58.5%). Eighty-nine percent of respondents claimed to have an average or higher level of education, and 62.4% said they were from an upper-

middle-class or better family. Almost half of the participants (45.8%) said they spent more than three hours a day online, and over a third said they spent between one and three hours a day online. About a third of people (30.5%) had been targets of cyberbullying within the past six months.

Table 1. *Socio-demographic characteristics of the study participants (n = 410)*

Demographic data	No.	%
Age		
12-14	177	43.2
14-16	163	39.8
16	70	17.1
Mean ± SD.	13.94 ± 1.38	
Gender		
Male	240	58.5
Female	170	41.5
Grade level		
1st middle school	125	30.5
2nd middle school	117	28.5
3rd middle school	168	41.0
Academic achievement		
Poor	45	11.0
Average	127	31.0
Good	238	58.0
Economic status		
Low	32	7.8
Moderate	122	29.8
High	256	62.4
Daily average use of the Internet		
Less than one hour	90	22.0
One to less than three hours	133	32.4
More than three hours	187	45.6
Did you expose to cyberbullying behaviors last two months		
No	285	69.5
Yes	125	30.5

As presented in Table 2, about one-third (30.5%) of the sample had encountered one or more of cyberbullying behaviors during the past six months

Table 2. *Prevalence of exposure to cyberbullying behaviors last six months*

Prevalence of exposure to cyberbullying behaviors	No.	%
Exposed to one of cyberbullying behavior	64	15.6
Exposed to two or three of cyberbullying bullying behaviors	42	10.2
Exposed to 4 or more of cyberbullying bullying behaviors	19	4,6
Total	125	30.5

Table 3 showed that Snapchat (26.1%), pictures and images (11.7%), and chat rooms (9.3%) were the most frequent sources of cyberbullying behaviors students' experience.

Table 3. *Frequencies of sources of cyber bullying behaviors as reported by students (n = 410)*

	Frequencies of sources of cyberbullying bullying behaviors experienced	Never		Sometimes		Always	
		No.	%	No.	%	No.	%
1	Text messages	245	59.8	148	36.1	17	4.1
2	Chat rooms	175	42.7	197	48.0	38	9.3
3	Instant Chat - Phone Calls	242	59.0	144	35.1	24	5.9
4	Pictures and graphics	211	51.5	151	36.8	48	11.7
5	Email	290	70.7	105	25.6	15	3.7
6	Snapchat	113	27.6	190	46.3	107	26.1
7	Video clips	190	46.3	193	47.1	27	6.6
8	Websites	217	52.9	165	40.2	28	6.8
9	Posting videos about others without permission	242	59.0	153	37.3	15	3.7
10	Sending audio clips that offend you	173	42.2	226	55.1	11	2.7

Exclusion from chat rooms (21.2%), online multiplayer games (20.7%), and logging in and sharing private communication (17.6%) were the most common forms of cyberbullying reported in table 4. Students reported that disseminating false information about them was the most common form of cyberbullying they had experienced (16.8%).

Table 4. *Frequencies of cyberbullying behaviors experienced by students (n = 410)*

	Frequencies of cyber bullying behaviors experienced	Strongly disagree/Disagree		Neutral		Strongly agree/Agree	
		No.	%	No.	%	No.	%
1	Threat via cell phone	372	90.7	7	1.7	31	7.6
2	Receive obscene short messages.	389	94.9	1	0.2	20	4.9
3	Being ridiculed and ridiculed through electronic chat rooms.	367	89.5	6	1.5	37	9.0
4	Post your defaced photos on social media	342	83.4	8	2.0	60	14.6
5	Log in to your personal account and publish your private conversation on social media.	331	80.7	7	1.7	72	17.6
6	Threats of physical harm through emails.	361	88.0	14	3.4	35	8.5
7	Exclusion from chat rooms	322	78.5	1	0.2	87	21.2
8	Reporting to your friends via emails or SMS.	342	83.4	10	2.4	58	14.1
9	Making fun of your appearance on social media.	375	91.5	5	1.2	30	7.3
10	Posting your videos on social media after making offensive edits.	357	87.1	3	0.7	50	12.2
11	Making fun of you via SMS.	390	95.1	10	2.4	10	2.4
12	Calling you inappropriate names and circulating them on social media.	372	90.7	8	2.0	30	7.3
13	Receiving shameful pictures against your will.	403	98.3	1	0.2	6	1.5
14	Post your personal secrets online.	386	94.1	4	1.0	20	4.9
15	Exclusion from online multiplayer games on purpose to embarrass you.	318	77.6	7	1.7	85	20.7
16	Impersonate yourself on social media and make you look bad	368	89.8	6	1.5	36	8.8
17	Deliberately ignoring your comments on social media.	366	89.3	10	2.4	34	8.3
18	Receiving programs via e-mail aimed at obtaining your personal information.	365	89.0	11	2.7	34	8.3

19	Imposing opinions and beliefs on you through frequent emails.	378	92.2	7	1.7	25	6.1
20	Spreading rumors and lies about you on websites.	340	82.9	1	0.2	69	16.8
21	Receiving messages and claims to engage in an ethically inappropriate chat.	390	95.1	7	1.7	13	3.2
22	Blocking or excluding instant messengers.	369	90.0	5	1.2	36	8.8
23	Disturbance by individuals who impose themselves on you through instant messaging programs (WhatsApp, Facebook Messenger...etc.	379	92.4	7	1.7	24	5.9
24	Refuse to participate in online chat rooms.	392	95.6	0	0.0	18	4.4
25	Receiving indecent messages on social media.	394	96.1	7	1.7	9	2.2
26	Posting offensive photos or videos on social media	390	95.1	12	2.9	8	2.0

The Mann-Whitney test for independent samples was used to analyses the disparities in cyberbullying experiences between men and women. At the 0.001 level of significance, Table 5 shows that males fared better than females in both the overall prevalence of cyber-bullying and its dimensions (Mockery and defamation, and Exclusion). Yet, at the 0.004 significance level, there was a gender-based disparity in reports of privacy invasions among research participants.

Table 5. *Gender distribution of the study participants according to cyberbullying (n = 410)*

(% Score)	Gender				U	p
	Male (n = 240)		Female (n = 170)			
	Mean ± SD.	Median	Mean ± SD.	Median		
Mockery and defamation	24.99 ± 19.25	18.75	17.24 ± 12.56	15.63	15718.0[*]	<0.001[*]
Exclusion	20.88 ± 15.22	20.0	16.94 ± 15.05	15.0	16377.5[*]	<0.001[*]
Privacy violation	14.81 ± 9.65	15.0	20.18 ± 15.97	15.0	17087.0[*]	0.004[*]
Ridiculous and threatening	14.79 ± 13.76	8.33	15.20 ± 18.41	8.33	18668.0	0.129
Sexual harassment	15.13 ± 10.69	15.0	14.56 ± 6.96	15.0	19474.5	0.425
Overall Cyber-bullying	**19.17 ± 9.93**	**16.35**	**17.00 ± 9.40**	14.42	17184.0[*]	<0.001[*]

SD: Standard deviation   U: Mann Whitney test   *: Statistically significant at p < 0.05

Students' average daily internet use, grades, family income, and age were used to determine the strength of the association between cyberbullying and each variable (Table 6). Cyberbullying was found to have positive relationships with daily average internet use, where rs (0.197, 0.199, 0.108, & 0.106) at p levels (0.001, 0.001, 0.029, & 0.032) for total cyberbullying, ridicule and defamation, exclusion, and privacy violation, respectively.

Overall cyberbullying and several of its aspects, including mockery and defamation, exclusion, and ludicrous and threatening conduct, were found to have significant negative relationships with academic achievement with rs (-0.150, -0.155, -0.173, & -0.119) at the p level (0.002, 0.002, <0.001, & 0.016).

Socioeconomic status was found to be negatively correlated with several aspects of cyberbullying, including mockery and defamation, ludicrous and threatening behavior, with a

p value of 0.013, 0.004, and 0.016, respectively. The rs (0.268 & 0.115) and p level (0.001 & 0.020) for social exclusion and sexual harassment, respectively, both increased with age.

Table 6. *Spearman correlation between cyber-bullying behaviors and study variables (n = 410)*

		Mockery and defamation	Exclusion	Privacy violation	Ridiculous and threatening	Sexual harassment	Overall Cyber-bullying
Daily average use of the internet	r_s	0.199*	0.108*	0.106*	0.053	0.053	0.197*
	p	<0.001*	0.029*	0.032*	0.280	0.281	<0.001*
Academic achievement	r_s	-0.155*	-0.173*	-0.001	-0.119*	0.015	-0.150*
	P	0.002*	<0.001*	0.984	0.016*	0.757	0.002*
Economic status	r_s	-0.140*	-0.051	-0.054	-0.118*	-0.038	-0.123*
	p	0.004*	0.300	0.271	0.016*	0.438	0.013*
Age	r_s	0.056	0.268*	0.114	0.099	0.115*	0.062
	p	0.301	<0.001*	0.125	0. 305	0.020*	0.361

r_s: Spearman coefficient   *: Statistically significant at p <0.05

The results of a binary logistic regression analysis performed to establish predictors of cyberbullying victimization are shown in table 7. After controlling for other variables, male gender, older age, lower socioeconomic level, and greater internet usage were all significant predictors of cyberbullying victimization. The above indicated characteristics were included in a multivariate regression model, which accurately predicted a victimization rate of about 0.278% due to cyberbullying.

Table 7. *Multivariate analysis Logistic regression for Prediction of cyber bullying victimization by study variables (n=410)*

	B	P	OR	95% CI LL	95% CI UL
Sex (Male)	1.413	<0.001*	4.107	2.422	6.965
Age	0.208	0.017*	1.232	1.037	1.462
Economic status					
Low	1.614	<0.001*	5.023	2.099	12.018
Moderate	0.167	0.538	1.181	0.695	2.007
High ®					
Academic achievements'					
Low	0.537	0.153	1.710	0.820	3.570
Moderate	0.340	0.215	1.405	0.821	2.404
High ®					
Average hours of using internet					
Less than one hour®	1.258	0.004*	3.517	1.504	8.224
One to less than three hours	1.609	<0.001*	4.999	2.201	11.355
More than three hours					

Nagelkerke R2=0. 0.278 B: Unstandardized Coefficients OR: Odds ratio CI: Confidence interval

LL: Lower limit UL: Upper Limit *: Statistically significant at p < 0.05

Discussion

This research set out to determine how often middle school children fall victim to cyberbullying and what factors contribute to that victimization. One of the problems that could emerge from the widespread use of communication technologies is cyberbullying. Three-quarters of the people involved in the study were cyberbully victims. Since most teens in this study have no idea who contacted them online, the relatively high rate may represent the rapid rise in modern communication among adolescents, who now have direct access to the internet via personal computers and mobile devices and inadequate adult supervision.

Adolescents' internet use peaked during the Covid-19 pandemic, when they spent more time online than before (Dong, Yang, Lu, & Hao, 2020; Fernandes et al., 2020). The prevalence of cyberbullying victimization varies by society, with estimates ranging from 13.99% to 57.5% (Feijoo et al., 2021; Chen & Chen, 2020; Kim, Kimber, Boyle, & Georgiades, 2019; Sorrentino, Baldry, Farrington, & Blaya, 2019), and from 6.5% to 35.4% in Europe and the United States, respectively (Zhu et al., 2021).

In terms of the Arabic region, these results are consistent with those found in a 2016 report by the Cyberbullying Research Centre. New studies in the Emirate reveal that the vast majority of participants had been victims of cyberbullying on social media (Abaido, 2020). Almost 61 kids (14.8%) also experienced cyberbullying on multiple occasions. According to Kim et al. (2019), just 13.3% of respondents were female (cyberbullied twice or more times). This indicates cyberbullying is an issue on a global scale that needs more attention from all sectors. As this study shows, teachers may play a crucial role in preventing and addressing cyberbullying, it is important that they do. It has been argued that factors such as strict disciplinary policies, low classroom social acceptance, and tense relationships between teachers and students contribute to cyberbullying (Martinez-Ferrer et al., 2019; Moreno et al., 2019). Vulnerability to cyberbullying is a serious issue that needs attention from researchers, teachers, lawmakers, and parents.

The current study found that Snapchat, picture and graphic sharing websites, and chat rooms were the most frequently used venues for cyberbullying. Similar research by Al-Zahrani (2015) in Saudi Arabia found that social networking sites, followed by mobile devices, and then chat rooms, were the most frequently used forms of online communication. According to Abaido (2020), the three most popular social media sites are Instagram, Facebook, and Twitter.

The most common form of cyberbullying in this study was being banned from participating in online multiplayer games and social networking sites. There is clearly a culture of victim-blaming present here. Our results are consistent with those of other studies on cyberbullying, including those by Rao et al (2019). It was found in a study that the prevalence of group violence in cyberbullying fell somewhere between 5 and 17%. It was also found in another study that 9.8% of respondents had no access to the Internet and 8.9% were not allowed to join a club or team (Aizenkot, Kashy-Rosenbaum, 2021). Results from Italian studies show that 19.07% of group antagonism in online forums is directed at third parties (Brighi, Menin, Skrzypiec, & Guarini, 2019). Participants also admitted to sharing rumours and hoaxes online, breaking into personal accounts, and live-streaming private conversations. The anonymity of the Internet allows bullies to remain hidden while leaving their victims vulnerable. These results are consistent with those found by (Feijoo et al., 2021); (Abaido, 2020); (Huang, Yang, & Hsieh, 2019) who found that the prevalence of account hacking, account creation, and rumor propagation on social networking sites was between 1.1% and 10%.

Cyberbullying is a problem that affects people of both sexes, and there is evidence that gender plays a distinct role in these dynamics (Feijoo et al., 2021; Abaido, 2020; Chen & Chen, 2020; Rosen & Nofzige, 2019). This study contradicts prior studies by showing that male teenagers are more likely to report being victims of cyberbullying than their female counterparts (Polanin et al., 2021; Zsila et al., 2019; Uludasdemir & Kucuk, 2019; Wang et al., 2019; Chao & Yu, 2017). These findings could be interpreted as indicating that adolescent males are more likely to engage in and be victims of cyberbullying because they lack the cognitive and emotional maturity to fully understand the relationship between their behaviours and their consequences (Yudes, Rey, & Extremera, 2020; Su, Han, Jin, Yan, & Potenza, 2019 & Khoury-Kassabri et al., 2019).

Previous research has mostly concentrated on the fact that males are overrepresented among perpetrators. Kowalski, Limber, and McCord state that there is a lack of consistency in the research on cyber-victimization. Athanasiou et al. (2018) and Ndiege, Okello, and Wamuyu (2020) found no variations in victimization by gender due to cyberbullying. A possible explanation for the disproportionate number of privacy breaches involving female students could be that girls are more likely than boys to use electronic communication channels like chat rooms and emails (the most common site for cyberbullying) to maintain personal relationships where they have little to no say over the disclosure of private information. Sharing passwords, talking to strangers, and publicly revealing private information are all potential outcomes of this (Abaido, 2020; Kim, et al., 2019; Wang, et al., 2019). The counterargument was offered by Khurana et al. (2015), who found that females were more prone to engage in aggressive behaviour. In conclusion, our findings shed insight on the repercussions of cyberbullying victimisation for teenagers of both sexes, but notably for teenage boys.

Results from the current investigation corroborated previous findings linking heavy Internet use to being targeted by cyberbullies. Cyberbullying victims were shown to spend more time online and/or using SNS than their peers, to publish more personal information, and to meet strangers online, similar with previous studies (Ding, et al., 2020; Rao et al., 2019; Barlett et al., 2018, Al-Zahrani, 2015). Researchers in Malaysia found that adolescents who spent 2-5 hours online per day were more likely to be victimized than those who spent less than an hour online per day (Balakrishnan, 2015). Olumide, Adams, and Amodu (2016) revealed that, contrary to the claims of some, frequent Internet users among adolescents have a lower risk of engaging in criminal behaviour.

The current research found a negative association between low socioeconomic level and becoming a victim of cyberbullying. This runs counter to the conclusions of studies by Perasso et al. (2020), Beyazit et al. (2017), and Muzamil and Shah (2016), who all found that lower socioeconomic level was associated with higher rates of cyberbullying. One possible explanation is that children from wealthier families are more likely to share photos of themselves on social networking sites (such as those depicting expensive vacations or things) that could be used to harm them (e.g., through impersonation in a fake profile or denigration via a photomontage). Teens who post photos of their possessions online are also at risk of having the image spread after receiving negative feedback. But Duarte et al. (2018) found no link between socioeconomic position and cyber victimization. This finding calls for an in-depth analysis of differences in online activity between women and men.

This research uncovered a few factors linked to being a cyberbullying victim. Male gender, older age, socioeconomic disadvantage, and rising internet use are all significant predictors of cyberbullying victimization. Researchers discovered a correlation between the gender of the victim and the prevalence of cyberbullying (male). This study contrasts other

studies that revealed no statistically significant link between gender and cyber victimization, as both girls and boys can be victims of online relational aggression (Athanasiou et al., 2018). Previous studies have found that women are more prone to become victims of cyber-victimization than men are because they are more open about sharing their thoughts and feelings on the internet. We confirmed the findings of two studies on the health habits of school-aged children (Perasso et al., 2020; Baldry, Sorrentino, & Farrington, 2019). Research into gender differences in online and social networking participation is thus warranted (e.g., Twitter, Instagram, and Facebook). This study confirmed the findings of previous research by Perasso et al. (2020) and Beyazit et al. (2017).

According to the research of Chu et al. (2019), family socioeconomic status may be a more accurate predictor of traditional bullying behaviour than victimization. According to Canty (2017), cyberbullying adolescents are likely to know each other in real life; however, it was not determined if bullied adolescents sought online retaliation against their bullies. In light of cyberbullying victims, the question of the reversal of roles between traditional bullying and cyberbullying persists.

Increased Internet use was found to be positively correlated with cyberbullying victimization, which is consistent with previous findings across the entire taxonomy of cyberbullying victimization (Perasso et al 2020; Barlett et al., 2018). Youth frequently increase their own vulnerability to victimization through the transmission, disclosure, and exchange of information on social networking sites. Understanding cyberbullying on social networking sites may benefit from more research into the various ways in which victims experience it.

According to these findings, which are consistent with those of other studies, cybercrime victims were more likely to be students in their twelfth and thirteenth years. Morin, Bradshaw, and Kush (2018); Huang et al. (2019); Tesler et al. (2019); In contrast, Livazovi'c and Ham (2019) and Hong, Kim, Thornberg, Kang, and Morgan (2018) found that cyberbullying was more common among adolescents and college students because of their increased impulsivity. Cyberbullying becomes more common as people get older (Al Qudah et al 2020).

Conclusion, recommendations, and limitations

The data presented here shed light on substantial problems with the victimization of middle school pupils by means of cyberbullying. As a consequence of this, efforts need to be made to establish ways for anticipating early identification, managing the victimization of cyberbullying (especially peer cyberbullying), and developing supporting solutions.

In order to effectively raise adolescent awareness of cyberbullying and reduce its perpetration and victimization, it is essential to design and implement programmers and workshops that do so. This should be done in collaboration with policymakers and responsible people, who should participate actively in anti-bullying programmers based on gender diversity. Because of the severity of its impacts, more research is required to investigate the characteristics of cyberbullying in Arab communities. This is necessary because of the severity of its consequences. The steps done to monitor cyberbullying should also be empowered by governments, and pupils should be made aware of the negative consequences that might result from participating in cyberbullying. In subsequent studies, researchers should make use of a variety of quantitative and qualitative measures, as well as larger potential samples and different age groups, in addition to additional independent variables that have been shown to predict cyberbullying victimization. They should also investigate the potential role of cultural

and social constructions in mediating differences in the behaviors exhibited by boys and girls. Teachers, academic advisors, and other school employees might offer seminars or sessions to educate students on the negative effects of cyberbullying. Schools must to be prepared with such measures for the early identification of students who have been bullied or who have become victims of bullying.

When attempting to make sense of the findings of this study, it is important to keep in mind the study's potential shortcomings, which include various factors. The R-squared values, as measured by Nagelkerke's R, for the logistic regression model were quite low. This may have been the result of the sample's descriptive features, as the number of participants who were not victims of cyberbullying was larger than the number of participants who were victims of cyberbullying in the study. The authors acknowledge the difficulties of relying on a self-report single item to quantify cyberbullying, as well as the variables such as academic achievement and financial status that diminish the sensitivity of measurement. The authors recognize that they did not investigate the elements that led up to the experience of cyberbullying as well as the ones that were connected with it.

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Conflict of interest statement

The authors report there are no competing interests to declare.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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