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Exposure to bullying between medical and non-medical university students in Bahrain

Haifa Mohammad Algahtani
Department of Psychiatry, Renewal and Reward Center, Dammam, Saudi Arabia
Laila Aldandan
Department of Psychiatry, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia and Renewal and Reward Center, Dammam, Saudi Arabia
Haitham Jahrami
Department of Psychiatry, Arabian Gulf University, Manama, Bahrain
Dalia Kamal
Faculty of Physical Therapy, Cairo University, Cairo, Egypt, and
Henry Silverman
School of Medicine, University of Maryland, Baltimore, Maryland, USA

Abstract

Purpose – Bullying negatively affects victims' mental health and has been shown to be associated with anxiety and depression. Moreover, many studies have reported the prevalence of mistreatment among medical students (MS), interns and junior physicians. However, there are limited studies on bullying in the Middle East, and no studies on higher education in Bahrain. The authors' aim was to investigate and compare the prevalence of bullying between MS at a major public university and non-medical students (NMS) at a private university in Bahrain. The authors also sought to explore the associations between bullying, depression and anxiety.

Design/methodology/approach – The authors conducted a survey-based cross-sectional study from October 1 to December 31, 2018, using convenient sampling method. A total of 300 students (150 MS and 150 NMS) participated in the study by answering a questionnaire that explored exposure to different types of bullying. In addition, standard anxiety and depression instruments were distributed to students.

Findings – The results showed that MS were more exposed to bullying than NMS, with a significant number (41%) reporting mistreatment from multiple sources, including teachers, consultants and peers. Furthermore, the authors found that bullying was significantly correlated with psychological health, anxiety and depression.

Originality/value – There are limited studies on bullying in the Middle East and no studies on the topic of higher education in Bahrain. Furthermore, the learning environment of tertiary education institutions can be improved by addressing the concerns associated with bullying identified in this study.

Keywords Bullying, Medical students, Depression, Anxiety, University, Higher education

Paper type Research paper

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Introduction

Researchers from across the globe have reported on the frequent occurrence of bullying in workplaces and educational institutions (Allen, 2015; Askew *et al.*, 2012; Rautio, Sunnari, Nuutinen, & Laitala, 2005). While there is a lack of consensus regarding the definition of bullying, one interpretation considers it to be "a persistent intentional harmful behavior toward an individual based on differences of power, which have negative effects on the victims" (Allen, 2015; Monks & Smith, 2006). Common forms include cyberbullying as well as physical, verbal, academic, sexual and gender-related bullying (Allen, 2015; Costales, Asio, Albino, Albino, & Riego de Dios, 2022; Monks & Smith, 2006; Schneider, O'Donnell, Stueve, & Coulter, 2012). Bullying behaviors can be displayed in the form of isolation, shouting, humiliation, criticism, insulting, mistreatment, withholding important information, belittlement with intimidation, excessive teasing, among other negative practices (Al-Hussain *et al.*, 2008; Alzahrani, 2012; Askew *et al.*, 2012; Fnais *et al.*, 2013, 2014; Fnais *et al.*, 2013, 2014; Frank, Carrera, Stratton, Bickel, & Nora, 2006; Iftikhar, Tawfiq, & Barabie, 2014; Imran, Jawaid, Haider, & Masood, 2010; Rautio *et al.*, 2005; Schneider *et al.*, 2012). Bullying has been associated with lower academic and professional performance, psychological distress, decreased interest in the specialty and can even lead to self-injury and suicide attempts in severe cases (Allen, 2015; Martin, Goodboy, & Johnson, 2015; Oser *et al.*, 2014; Peres *et al.*, 2016; Schneider *et al.*, 2012).

There is considerable evidence demonstrating the presence of bullying in professional health education. For example, in a multinational study of first-year dental students from seven schools in five countries, the prevalence of bullying was found to be 35% (Rowland *et al.*, 2010). A study involving 16 medical colleges in the USA found that 40% of the senior students were harassed and 84% were belittled (Frank *et al.*, 2006). A meta-analysis of studies from 14 countries found that 59% of medical trainees were exposed to harassment and discrimination (Fnais *et al.*, 2014). In addition, reports from Pakistan and Jordan showed that more than 60% of medical science students and junior physicians were mistreated (Al-Hussain *et al.*, 2008; Imran *et al.*, 2010), while studies in the Kingdom of Saudi Arabia reported comparable results (Almulhim *et al.*, 2018; Alzahrani, 2012; Fnais *et al.*, 2013; Iftikhar *et al.*, 2014).

Research has shown that workplace bullying is not only an interpersonal issue but also represents organizational dynamics and includes the following four criteria: (1) frequency, (2) duration, (3) power imbalance and (4) negative effect on the target (Rodríguez-Carballeira, Escartín Solanelles, Visauta Vinacua, Porrúa García, & Martín-Peña, 2010). The presence of power hierarchies in the education environment is considered a significant factor contributing to the occurrence of acts of bullying in the healthcare sector and colleges (Allen, 2015; Imran *et al.*, 2010). For example, in tertiary educational (college/university) settings, junior faculty members (instructors) were found to be the most frequently involved in the bullying of college students (Al-Hussain *et al.*, 2008; Alzahrani, 2012; Iftikhar *et al.*, 2014; Martin *et al.*, 2015; Rautio *et al.*, 2005; Rowland *et al.*, 2010). In hospital settings, 44–65% of the senior registrars and consultants were reported to mistreat residents, particularly at junior levels (i.e., first and second years of residency; Askew *et al.*, 2012; Imran *et al.*, 2010; Ahmer *et al.*, 2008; Al-Shafaee *et al.*, 2013).

There are limited studies on bullying in the Middle East and no studies on the topic in higher education of Bahrain (Al-Hussain *et al.*, 2008; Almulhim *et al.*, 2018; Alzahrani, 2012; Elghazally & Atallah, 2020; Swed *et al.*, 2022). Accordingly, our aim was to demonstrate various aspects of bullying in higher educational settings in Bahrain. Our objectives included (1) investigating and comparing the prevalence and types of bullying between medical and non-medical students (MS and NMS, respectively) at two universities and (2) examining the association between demographic variables, depression, anxiety and bullying.

Materials and methods

Study design and participants

We conducted a questionnaire-based cross-sectional study at two universities in Bahrain between October and December 2018. The study sample consisted of (1) MS at a major public university and (2) NMS at a private university. We excluded part-time students from our sample with the assumption of potential difference in exposure to bullying.

The major public university offers a six-year Doctor of Medicine bachelor program for students from countries that are part of the Gulf Cooperation Council. It follows a problem-based learning curriculum, and the program is divided into three phases: Phase 1, Basic Sciences; Phase II, Medical Sciences; and Phase 3, Clinical Clerkships. The private university offers bachelor's degrees in different non-medical disciplines, including business, engineering, information technology and the humanities.

Study tools

We used a bullying questionnaire from previous studies measuring the prevalence and types of bullying among MS in Pakistan and Saudi Arabia (Ahmer *et al.*, 2008; Almulhim *et al.*, 2018). The questionnaire consists of two parts, with the first collecting sociodemographic data and the second assessing students' exposure to bullying by peers, teachers, staff or general managers at the university over the past 12 months. The second part consists of 20 yes-or-no items on academic-related behavioral bullying, including setting impossible deadlines, shifting goals, freezing out, ignoring, as well as verbal, physical and sexual harassment. As the English proficiency level of the targeted MS and NMS was heterogenous, all items concomitantly featured the description in English and its Arabic translation. The translation was performed by four students, reviewed by two teachers and the group approved the final version that was culturally appropriate. We calculated a bullying score by summing up all related items. We assigned 1 point for "yes" responses and 0 for "no" and missing responses. Higher scores indicated a greater severity of bullying.

We used the Patient Health Questionnaire 9 (PHQ-9) to assess depression severity. Its scores range from to 0 to 27 and were categorized as follows: 0–4 indicated no depression, 5–9 indicated mild, 10–14 indicated moderate, 15–19 indicated moderately severe and 20–27 indicated severe depression. The validity of the scale was assessed against a psychiatric interview. In a past study, PHQ-9 scores $\geq$10 showed a sensitivity of 88% and specificity of 88% for screening major depression disorder (Kroenke, Spitzer, & Williams, 2001).

We used the generalized anxiety disorder (GAD-7) questionnaire to assess anxiety symptoms. GAD-7 scores were calculated by assigning points of 0, 1, 2 and 3, to the response categories of "not at all," "several days," "more than half the days," and "nearly every day," respectively. The total score for the seven items of the scale ranges from 0 to 21 and were categorized as follows: 0–4 indicated minimal anxiety, 5–9 mild, 10–14 moderate and 15–21 severe anxiety. A diagnostic meta-analysis of the GAD-7 reported a sensitivity and specificity for screening general anxiety disorder of 0.83 and 0.84, respectively (Plummer, Manea, Trepel, & McMillan, 2016). The Arabic versions of the PHQ-9 and GAD-7 have demonstrated high psychometric properties (AlHadi *et al.*, 2017; Sawaya, Atoui, Hamadeh, Zeinoun, & Nahas, 2016).

All study tools were self-administered, and all respondents provided voluntary and informed consent to their participation in this study.

Recruitment process

A convenience sampling method was employed, with the questionnaires being distributed face-to-face by MS from the major public university who were trained to explain the purpose of the study as well as to obtain voluntary participation and written informed consent. The

data collector approached students at both colleges during class breaks, and those who agreed to participate were given a consent form and the questionnaires. The data collectors witnessed the signing of the form. Responses were collected anonymously to ensure privacy and encourage participation.

Statistical analysis

Data analysis was performed using SPSS version 25.0. Both parametric and non-parametric tests were performed. The data were assessed for normality using the Kolmogorov–Smirnov test. Two-tailed *t*-tests and chi-squared analysis were used to compare the two groups. We analyzed the association between bullying, demographic variables, depression and anxiety using chi-square tests. Statistical significance was set at $p < 0.05$.

We calculated the sample size using Kelsey's method based on a previous study, in which 52% of the students reported exposure to bullying (Kelsey, 1996). Assuming that at least half of the control group might be exposed to bullying, an alpha and beta level of 0.05 and 0.2, respectively, a 95% confidence interval and a power of 80%, the sample size was calculated to be 138 participants (Ahmer *et al.*, 2008; Kelsey, 1996). To account for dropouts, we enrolled 150 students from each university, which increased the power to approximately 90%.

We conducted linear regression analyses to predict the dependent variables of GAD-7, PHQ-9 and bullying questionnaire scores based on sample characteristics. Independent variables included gender, nationality, age, marital status, college and education level. Results were expressed as odds ratios, corresponding 95% confidence intervals and p-values.

Ethical approval

Ethical approval was obtained from the appropriate ethics committees at both universities in this study in January 2018 (reference number 61-PI-04-16) for a one-year period, from February 1, 2018 to January 31, 2019.

Results

Demographics

A total of 300 students (150 MS and 150 NMS) participated in this study. Most participants were of Bahraini nationality (public university = 56.7%; private university = 85.3%). MS were slightly older than NMS, which was probably due to the medical students being more advanced in the educational process. Females comprised the majority in both groups (Table 1).

Bullying prevalence

The prevalence of bullying was significantly higher among MS compared to NMS in 13 of the 20 bullying types. The types of bullying with the highest prevalence in both groups included "undue pressure to produce work" (41.0%), "setting of impossible deadlines" (32.7%), "belittlement" (26.0%), "shifting of goal posts without telling you" (23.3%), "discrimination on racial or sexual grounds" (22.3%), "constant undervaluing of your efforts" (21.6%), "persistent attempts to demoralize" (21.3%) and "destructive innuendo and sarcasm" (20.3%; Table 2).

Source of bullying

Regarding the sources of bullying, 41% of the MS reported mistreatment from multiple sources: faculty staff, namely, teachers (16.7%) and consultants (7%), as well as peers (8.7%). Among NMS, 29% were bullied by teachers, 9.3% by peers and 2.7% by the administrative staff.

Variable	No. of medical students (%)	No. of non-medical students (%)
Nationality		
Bahraini	85 (56.7%)	128 (85.3%)
Non-Bahraini	65 (43.3%)	22 (14.7%)
Age		
18–20 years	43 (28.7%)	71 (48.6%)
21–23 years	89 (59.3%)	57 (38%)
24+ years	18 (12%)	20 (13.3%)
Gender		
Male	49 (32.7%)	70 (46.7%)
Female	101 (67.3%)	80 (53.3%)
Educational level		
Junior[a]	75 (50%)	75 (50%)
Senior[b]	75 (50%)	75 (50%)

Note(s): [a]Junior levels: years 1 and 2 for non-medical, and years 2–4 for medical students
[b]Senior levels: years 3 and 4 for non-medical, and years 5 and 6 for medical students
Source(s): Table by authors

Table 1. Demographic characteristics of participants

Type of bullying	Prevalence (N, %) MS[a] N = 150	NMS[b] N = 150	Total N = 300	*p*-value
Attempts to belittle and undermine your work	57 (38%)	21 (14%)	78 (26.0%)	<0.0001
Unjustified criticism and monitoring of your work	38 (25.3%)	17 (11.3%)	55 (18.3%)	<0.0001
Attempts to humiliate you in front of colleagues	29 (19.3%)	11 (7.3%)	40 (13.3%)	<0.0001
Intimidating use of discipline or competence procedures	34 (22.67%)	4 (2.67%)	38 (12.7%)	<0.0001
Undermining your personal integrity	32 (21.3%)	13 (8.67%)	45 (15.0%)	<0.0001
Destructive innuendo and sarcasm	41 (27.3%)	20 (13.3%)	61 (20.3%)	<0.0001
Making inappropriate jokes as well as verbal and non-verbal threats about you	29 (19.3%)	15 (10%)	44 (14.7%)	<0.0001
Persistent teasing	15 (10%)	15 (10%)	30 (10.0%)	1.00
Physical violence	4 (2.67%)	4 (2.67%)	88 (2.7%)	1.00
Sexual harassment	5 (3.3%)	3 (2%)	8 (2.7%)	0.5144
Violence to property	5 (3.3%)	7 (4.67%)	12 (4.0%)	0.5106
Withholding necessary information from you	26 (17.3%)	18 (12%)	44 (14.7%)	0.1799
Freezing out, ignoring or excluding	31 (20.67%)	24 (16%)	55 (18.3%)	0.2656
Undue pressure to produce work	77 (51.3%)	46 (30.67%)	123 (41.0%)	<0.0001
Setting of impossible deadlines	61 (40.67%)	37 (24.67%)	98 (32.7%)	<0.0001
Shifting of goal posts without telling you	50 (33.3%)	20 (13.3%)	70 (23.3%)	<0.0001
Constant undervaluing of your efforts	40 (26.67%)	25 (16.67%)	65 (21.6%)	<0.0001
Persistent attempts to demoralize you	42 (28%)	22 (14.67%)	64 (21.3%)	<0.0001
Removal of areas of responsibility without consultation	15 (10%)	12 (8%)	27 (9.0%)	0.5457
Discrimination on racial or sexual grounds	42 (28%)	25 (16.67%)	67 (22.3%)	0.0228

Note(s): [a]MS, medical students
[b]NMS, non-medical students
Source(s): Table by authors

Table 2. Bullying questionnaire items and prevalence of bullying among medical and non-medical students

Mean scores and correlation

MS showed higher mean scores for bullying, GAD-7 and PHQ-9 than NMS (Table 3). The GAD-7 scores showed a statistically significant positive correlation with bullying scores in

Study variable		M (SD)	MD	95% CI of the difference Lower	Upper	*t*-test value	*p*-value[a]
GAD-7	MS[b]	6.63 (5.24)	1.65	0.53	2.78	2.88	0.004
	NMS[c]	4.97 (4.68)					
PHQ-9	MS	8.68 (5.90)	1.86	0.57	3.14	2.84	0.005
	NMS	6.82 (5.36)					
Bullying	MS	4.48 (4.28)	2.09	1.20	2.98	4.62	0.001
	NMS	2.39 (3.62)					

Note(s): Data are presented as mean (M) and standard deviation (SD); mean difference (MD); and CI confidence interval
[a]Significance at 0.05
[b]MS, medical students
[c]NMS, non-medical students
Source(s): Table by authors

Table 3. GAD-7, PHQ-9 and bullying scores among medical and non-medical students

both MS ($r = 0.432$, $p < 0.001$) and NMS ($r = 0.418$, $p < 0.001$). Positive correlations were also found between bullying and PHQ-9 scores in both MS ($r = 0.371$, $p < 0.001$) and NMS ($r = 0.459$, $p < 0.001$) (Table 4). Results of the regression analyses are shown in Table 5. Only gender was a statistically significant predictor of GAD-7, PHQ-9 and bullying scores (Table 5). The type of student (MS vs. Non-MS) did not reach statistical significance at a p level of $p = 0.50$.

Discussion

To our knowledge, this was the first study to examine the differences in aspects of bullying between medical students and non-medical students in higher educational settings.

We found a high prevalence of distinct types of bullying among both MS and NMS, the highest including academic-related mistreatments, such as setting impossible deadlines, shifting goals, freezing out, ignoring and exclusion. This was followed by verbal mistreatments, including belittlement, unjustified criticism, humiliation in front of others, destructive innuendo and sarcasm and inappropriate jokes or verbal threats. Finally, there was a relevant prevalence of physical violence and sexual harassment. MS reported significantly higher rates of experiencing bullying than NMS on 13 of the 20 bullying items. The types of bullying with the greatest differences between the two groups included academic and verbal mistreatment as well as sexual harassment.

The bullying rates found in our sample are comparable to those found in other studies. For instance, the rates of bullying among senior MS reported in three studies from Pakistan, Egypt and Saudi Arabia were 28%, 52% and 71%, respectively; however, the findings of

Items	Groups	Correlation coefficient	*p*-value
Bullying score and GAD-7 score	MS[a]	0.432	0.001
	NMS[b]	0.418	0.001
Bullying score and PHQ-9 score	MS	0.371	0.001
	NMS	0.459	0.001

Note(s): [a]MS, medical students
[b]NMS, non-medical students
Source(s): Table by authors

Table 4. Correlations between GAD-7, PHQ-9 and bullying scores among medical and non-medical students

Variable	GAD-7 score Beta	GAD-7 score *p*-value	PHQ-9 score Beta	PHQ-9 score *p*-value	Bullying score Beta	Bullying score *p*-value[a]
Gender						
Female – male	1.64	0.01	2.12	0.01	0.13	0.01
Nationality						
Non-Bahraini – Bahraini	−0.51	0.46	−0.14	0.86	0.16	0.46
Age						
18–20 – Under 18	−0.3	0.93	0.31	0.94	0.22	0.93
21–23 – Under 18	0.76	0.83	2.1	0.60	1.31	0.83
24+ – Under 18	−0.56	0.88	0.49	0.91	0.04	0.88
Marital status						
Married – single	−1.49	0.32	0.65	0.70	0.74	0.32
Engaged – single	−1.43	0.42	−1.85	0.36	−0.93	0.42
Divorced – single	−0.45	0.93	−1.15	0.84	4.64	0.93
College						
Non-medical – medical	−1.27	0.051	−1.24	0.09	−1.86	0.051
Education level						
Senior – junior	−0.38	0.60	−1.58	0.05	0.56	0.60

Note(s): [a]Significance at 0.05
Source(s): Table by authors

Table 5. Linear regression analysis to predict GAD-7, PHQ-9 and bullying scores based on sample characteristics

these studies differed from ours regarding the most common forms of bullying. The highest score was for verbal bullying, followed by behavioral, physical and written bullying (Ahmer *et al.*, 2008; Alzahrani, 2012; Elghazally & Atallah, 2020).

Our findings showed that the predominant source of bullying was faculty staff, thus demonstrating the influence of power hierarchies in educational settings. While these results are comparable to studies conducted in Jordan, Saudi Arabia and Pakistan (Ahmer *et al.*, 2008; Al-Hussain *et al.*, 2008; Almulhim *et al.*, 2018), they contrast with the results of Egyptian and Syrian studies, which showed peers as the main source, followed by staff and professors (Elghazally & Atallah, 2020; Swed *et al.*, 2022). While differences in the sources of bullying can be observed across studies, what is common is the occurrence of bullying at all levels of the educational environment, regardless of hierarchy. Students may learn to bully from example, as one may assume that if teachers engage in it, it is acceptable for students to engage in bullying behaviors as well.

Our results also showed that MS experienced higher frequency of bullying across several bullying types compared with NMS. However, in the multiple regression analysis, the total bullying scores between student groups were not statistically significant ($p = 0.051$). By contrast, a research that compared MS and NMS' exposure to bullying at a university in Saudi Arabia showed that the latter reported higher rates of bullying (Almulhim *et al.*, 2018). These results demonstrate that the type of higher educational setting does not seem to influence the prevalence of bullying among students.

Our findings also showed a 2.7% rate of sexual harassment. This rate compares with those reported among MS at two universities (6% and 1.7%, respectively) in Saudi Arabia (Almulhim *et al.*, 2018; Alzahrani, 2012). However, the rates of sexual harassment and gender-based mistreatment are highly variable in the literature, ranging from 1.7 to 58%. This variability might be related to differences in the studies regarding the definition of bullying, targeted populations and assessment tools used (e.g., using a self-developed questionnaire about bullying or adapting one from previous literature; Al-Hussain *et al.*, 2008; Almulhim *et al.*, 2018; Alzahrani, 2012; Fnais *et al.*, 2013; Iftikhar *et al.*, 2014; Imran *et al.*, 2010; Martin

et al., 2015; Oser *et al.*, 2014; Peres *et al.*, 2016; Rowland *et al.*, 2010). Accordingly, a standard bullying questionnaire needs to be developed in order to enable researchers to conduct various studies using a standardized scale. This, in turn, will pave the way for future research comparing the prevalence of bullying in different educational settings and regions across the globe.

Additionally, studies that included gender-based bullying found that males were associated with a higher exposure risk to bullying in general (Ahmer *et al.*, 2008; Almulhim *et al.*, 2018; Elghazally & Atallah, 2020), while females were at a higher risk of sexual harassment (Al-Hussain *et al.*, 2008; Alzahrani, 2012; Barak, Fisher, & Houston, 1992; Fnais *et al.*, 2013; Hashmi *et al.*, 2013; Mukhtar *et al.*, 2010; Oni, Tshitangano, & Akinsola, 2019; Sivertsen *et al.*, 2019; Swed *et al.*, 2022). However, this could represent the underreporting of sexual harassment experienced by males especially as females comprised the majority of the sample of our research and of previous studies (Elghazally & Atallah, 2020; Hashmi *et al.*, 2013; Sivertsen *et al.*, 2019). Furthermore, cultural values, age, behavior perception, fear of retaliation, embarrassment, stigmatization and fear of being ridiculed are factors that could explain the underreporting of sexual harassment among males (Alzahrani, 2012; Barak *et al.*, 1992; Guschke, Busse, Khalid, Muhr, & Just, 2019; Reilly, Lott, & Gallogly, 1986).

The current study showed a significant association between exposure to bullying and the development of depression (high scores on the PHQ-9) and anxiety (high scores on the GAD-7). Based on their responses to the PHQ-9 scale, most MS in our sample reported feeling bad about themselves, being a failure or that they let themselves or their family down, whereas the prevalence of such reports among NMS was lower. These findings indicate the possibility of increased depression symptoms among MS. Our results compare with those of a longitudinal study of MS in the USA that showed, an association between exposure to bullying and an increased risk for depression, binge eating, suicide and substance abuse (Frank *et al.*, 2006).

Additional studies replicated findings of significant sequelae of bullying involving MS that included the development of poor self-evaluation, self-esteem, deficient performance, loss of interest, depression, anxiety and suicide. (Ball, Alexander, & Cleland, 2020; Barbaree & Davis, 1984; Brown, 2010; Cook, Arora, Rasinski, Curlin, & Yoon, 2014; Frank *et al.*, 2006). The stress associated with high expectations and increased demands in the medical school setting could be an explanatory factor for such sequelae (Quek *et al.*, 2019; Saravanan & Wilks, 2014). Moreover, factors related to the learning environment, such as lack of support systems, resources and time off, were the most cited contributors to MS' burnout and depression (Gold *et al.*, 2019).

Limitations

Our study has several limitations. First, the questionnaire used in the study was used in previous studies, however its validity and reliability were not measured. The collected responses relied on self-reported data, which might be a source of bias and underreporting. In addition, reports of bullying were based on retrospective recall. Another limitation is the subjectivity of the term "bullying," and participants' interpretation of what they considered as bullying or harassment. Furthermore, the scores for depression and anxiety could represent preexisting mental health issues and not necessarily be related to bullying, although the latter can exacerbate the former. Finally, the effects of gender, personality and family history of mental disorders on depression and anxiety scores were beyond the scope of the study methodology.

Future research could focus on developing a standardized bullying questionnaire. Additionally, they could further examine the long-term effect of bullying among a cohort of students in the studied region as they progress from junior to senior level with intervention programs in place.

Conclusions and recommendations

Our study showed a prevalence of bullying similar to that reported in studies from other regions in the world, indicating the universality of this phenomenon. We showed that the major source of bullying came from individuals with power in the context of higher education in Bahrain. Our findings allow us to offer several recommendations that could help improve the situations related to bullying in tertiary educational institutions.

First, awareness of bullying and its adverse impact on students should be made more comprehensive and widespread. Universities can accomplish this by including this topic in the professional curriculum and by learning from existing bullying prevention programs. Although most prevention programs are directed toward school bullying in different geographical areas, some well-studied components can be proposed for implementation in our region, such as small-group discussions with teachers and students as well as online platforms for anonymous peer support and consultation (Gaffney, Farrington, & Ttofi, 2019). Second, given the negative impact of bullying on the psychological health, developing screening programs at different educational stages would facilitate early case identification and intervention. Third, efforts should be aimed at promoting self-reflection and self-regulation opportunities during students' professional development to avoid the negative impacts of bullying on their mental well-being (Carlasare & Hickson, 2021). Finally, there is a need to implement bullying-related policies that provide clear guidelines of reporting, managing and protecting privacy in addition to processes examining accuracy of reports.

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Corresponding author
Haifa Mohammad Algahtani can be contacted at: ksa_cbt@yahoo.com