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College Students' Perceptions of Professor/Instructor Bullying: Questionnaire Development and Psychometric Properties

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Abstract

Objective—This study developed and examined the psychometric properties of a newly formed measure designed to assess professor/instructor bullying, as well as teacher bullying occurring prior to college. Additionally, prevalence of instructor bullying and characteristics related to victims of instructor bullying were examined.

Participants—Participants were 337 college students recruited in 2012 from a northeastern university.

Methods—An online questionnaire was administered to college students. A split-half, cross-validation approach was employed for measurement development.

Results—The measure demonstrated strong criterion validity and internal consistency. Approximately half of students reported witnessing professor/instructor bullying and 18% reported being bullied by a professor/instructor. Report of teacher bullying occurring prior to college was related to professor/instructor bullying in college, and sex was a moderating variable.

Conclusion—College students perceive instructor bullying as occurring but may not know how to properly address it. Prevention efforts should be made by university administrators, faculty and staff.

Keywords

Bullying; University; College Student; Faculty; Scale Development

Introduction

While bullying research has burgeoned over the past two decades, few studies have explored students' perceptions of teachers as bullies. Yet, the extant literature suggests that teacher bullying does exist,^{1–5} and researchers⁶ have called for a closer examination of the maltreatment of students in the United States (US). Although bullying behaviors and being bullied have traditionally been thought to lessen with age,^{1,7} social forms of bullying have been shown to remain relatively stable.⁸ In fact, research involving workplace bullying has demonstrated that bullying often continues into adulthood,¹ and has been shown to exist within higher education settings.⁹ Research assessing professor/instructor bullying of

college students, however, has been largely overlooked in the literature. Increasing knowledge about professor and instructor bullying is important given research findings that support that college students' perception of rapport with their professors/instructors predicts motivation, perceptions of learning, and perceived grades.¹⁰ To date, only one study has assessed the prevalence of teacher bullying in a college population and the study found that nearly one-third of students report witnessing teacher bullying.¹ Furthermore, no studies have established any self-report inventories or scales measuring professor or instructor bullying of college students. Therefore, the present study sought to establish the psychometric properties of a new questionnaire – the Student Perception of Professor/Instructor Bullying Questionnaire (SPPBQ) – and to identify the self-reported prevalence of professor and instructor bullying among college students as well as associated characteristics.

Background

Teacher & Professor/Instructor Bullying

While various definitions of teacher bullying exist, currently there is no definition specific to professor/instructor bullying in the literature. Olweus first defined teacher bullying as repeated, sarcastic or arrogant acts and/or hurtful comments to a student.^{2,3} More recently, teacher bully was defined as “a teacher who uses his/her power to punish, manipulate or disparage a student beyond what would be a reasonable disciplinary procedure”.⁵ The present study used the latter definition of teacher bullying for professor/instructor bullying and drew from the broader definition of peer bullying.¹¹ Therefore, professor/instructor bullying may also include saying hurtful things in general or specific to the student's character or ability, making obscene gestures to the student, ignoring or neglecting the student, physical actions or attacks that may involve hurting or pushing around a student, or telling lies or secrets that make others dislike the student or get the student into trouble.

The only study to investigate teacher (professor/instructor) bullying of college students found that approximately 15% percent of 1,025 college students reported being bullied once or twice, 4% reported being bullied occasionally, and 2% reported being bullied frequently.¹ Prevalence estimates of teacher bullying, however, have ranged from 1.67% for middle school students to 30% for secondary students.^{2,12} Additionally, 64% of a sample of young adults reported being bullied by a teacher at least once over the course of their lifetime¹³ and 93% of a sample of high school and college students identified at least one teacher as a bully in their school.¹⁵ Adolescents in alternative education programs have also reported being physically and psychologically mistreated by adults.¹⁶ Finally, teachers have recognized bullying as a problem and admitted to bullying students or reported that their students may have viewed their (teachers') behavior as bullying.^{5,14}

Regarding specific roles within teacher bullying, male teachers were shown to be more likely to bully male students than female teachers.⁴ Boys appear to be more likely than girls to perceive themselves as victims of teacher maltreatment, a closely related construct to teacher bullying,^{6,17–19} and female students from families with a high socioeconomic status were shown to be victims of teacher verbal abuse less frequently.²⁰ Research investigating teacher verbal abuse of students has found that students with higher likelihoods of being

verbally abused by teachers may comprise 15% of school children, and even as students change teachers from grade to grade, the probability of teacher verbal abuse remains relatively stable for these children.³ Students with prominent inattention and antisocial behaviors have also been shown to be more susceptible to teacher verbal abuse than other students as these behaviors may be perceived by teachers as jeopardizing their efficiency and systematic management of the classroom.^{3,17}

Although no studies have addressed the impact of professor/instructor bullying on college students, students who have been bullied by teachers have demonstrated greater risk for oppositional behavior, increased fighting, loss of trust, feelings of hopelessness and suicidality, post-traumatic stress disorder (PTSD) and depression.⁴ Experience of teacher bullying may be associated with high-risk behaviors (e.g., drinking) and poorer academic outcomes (e.g., commitment to completing school) for adolescent students.²¹ Additionally, increased frequency of teacher bullying may be connected to increased suspensions and disciplinary referrals.²² For example, after controlling for variables commonly related to increased behavioral problems in schools (e.g., reduced lunch status, special education status, number of minority students), one study found that teachers within schools demonstrating the highest rates of suspensions, compared to schools with low and moderate rates, reported significantly higher rates of bullying their students.²³

Purpose of the Present study

Because the topic of professor/instructor bullying has only been addressed by one study relying on dichotomous questions,¹ the primary purpose of the present study was to develop and examine the psychometric properties of a new questionnaire, the Student Perception of Professor/Instructor Bullying Questionnaire (SPPBQ), designed to assess professor/instructor bullying. A secondary purpose of this study was to examine self-reported prevalence of instructor bullying among college students. Additionally, the present study explored sex as a potential moderator for the relationship between college students' history of being bullied by teachers prior to college and current self-ratings of being bullied by professors/instructors in college. It was hypothesized that students who reported a history of being bullied by teachers prior to college would be more likely to report being bullied by professors/instructors in college as measured by a global professor bullying score on the SPPBQ and that this relationship would be moderated by sex.

Methods

Participants & Settings

The study was approved by the university's institutional review board. A convenience sample of college students was recruited from a northeastern public university. Participants were recruited from general education and upper level college courses with email announcements and flyers posted throughout the college campus directing them to a secure and encrypted website. Participants read a consent form and confirmed their understanding by clicking on a statement of endorsement that allowed access to electronic forms of the SPPBQ and a demographic questionnaire designed by the researchers.

Sample Size

Several considerations led to the selection of a minimum sample size of 300, including general recommendations for the number of participants needed for assessments of internal reliability, split-half cross-validation, principal components analysis, and confirmatory factor analysis in the context of measurement development.^{24–27} In addition, calculations based on a sample size equation provided by Bonett²⁸ and power calculations for 2×2 between-subjects factorial ANOVA with $\alpha = .05$ suggested a minimum sample size of 300.²⁹

Measures

Demographic Variables—Demographic variables included student sex, age, years of education, GPA, ethnicity, disability status, and major.

Student Perceptions of Professor/Instructor Bullying Questionnaire (SPPBQ)

—The SPPBQ was designed to assess the self-reported prevalence and dimensions of professor/instructor bullying among college students. The SPPBQ included a definition of teacher and professor/instructor bullying and peer bullying. Items included questions modeled after Chapell et al.'s survey,¹ inquiring about teacher and professor/instructor bullying experiences, as well as peer bullying experiences. The remainder of the questionnaire followed a format similar to the Negative Acts Questionnaire – Revised (NAQ-R) – a previously validated measure designed to assess exposure to workplace bullying.³⁰ The NAQ-R encompassed three underlying factors (personal, work-related and physically intimidating forms of bullying) and also generated a single item measure of bullying. The NAQ-R demonstrated high internal stability for all three factors and for one single factor, as well as satisfactory criterion and construct validity in relation to a single question assessing bullying.³⁰ The SPPBQ was designed to reflect similar components: personal, academic-related and physically intimidating forms of bullying and also a single item measure of bullying. Questions were generated to address specific behaviors related to these components and reflect the definition of professor/instructor bullying. Responses were on a five point Likert-scale for frequency, from *never* to *daily*.

Data Analyses

The sequential approach to measurement development using split-half, cross-validation was used to investigate the psychometric properties of the SPPBQ.²⁶ The sample was split randomly into two halves for exploratory and confirmatory psychometric analyses. In the initial phase using the first half of the data, a series of exploratory principal components analyses (PCA) with orthogonal (varimax) rotation was conducted, along with item-level analyses, to determine a final set of items for the measure. Horn's parallel analysis and Velicer's MAP procedure were run to assess the number of components specified within the PCA.^{26,31,32} This final set of items was then subjected to cross-validation analysis using confirmatory factor analysis (CFA) on the second half of the data, which allows for more confidence in a measure's psychometric structure and permits an evaluation of the fit of the model to the data.²⁶ To assess sex as a moderator of the relationship between student report of being bullied by teachers prior to college and student perceptions of bullying by

professors/instructors in college, a 2×2 (teacher bullying status; sex) between-subjects factorial analysis of variance (ANOVA) was run. Two dichotomous independent variables (teacher bullying status and sex) were included with one continuous dependent variable of self-perceived bullying by professors/instructors in college as measured by the global bullying scores from the SPPBQ. SPSS version 21 was used to conduct the item analyses and exploratory PCAs and EQS was used to conduct cross-validation CFA.^{33,34}

Results

Sample Characteristics

The final sample consisted of 337 participants, including 260 females and 65 males (12 participants did not report their sex), of which 80.7% were white, 5.6% black or African American, 6.8% Latino/Hispanic, 3.0% Asian/Asian American, and 3.6% self-identified as another ethnicity (American Indian or Alaskan, Pacific Islander, multiethnic, or other). Students ranged in age from 18 to 35 years, although the majority of students (90.8%) were between the ages of 18 and 22 years ($M = 20.5$, $SD = 1.8$). Eight percent of the participants were freshmen, 18.7% were sophomores, 37.4% juniors, and 32.0% seniors. Forty-seven percent of students had declared majors in the Arts & Sciences, of which 53.8% were psychology majors and 24.7% were communications majors; the remaining students represented majors across all colleges of the university. Twenty participants reported having a documented disability. The majority of students reported attending a public elementary school (78.9%) and a public high school (80.1%).

Prevalence Rates

Prevalence estimates of how often students have witnessed and experienced professor/instructor, teacher, and student bullying are displayed in Table 1. Approximately half of the participants (51%) reported seeing another student being bullied by a professor/instructor at least once, but only 18% reported being bullied by a professor/instructor themselves at least once. Nearly half of the participants (44%) reported being bullied by a teacher in elementary, middle or high school at least once. Although the majority of students reported witnessing peer bullying in college at least once (64%), only 33% reported being bullied by a peer in college and only 15% reported bullying their peers in college. Very few students reported a time when another student stopped or attempted to stop a professor/instructor from bullying them (7%) or a time when they stopped or attempted to stop another student from being bullied by a professor/instructor (14%).

Participants who reported being bullied by a professor/instructor were asked the grade in school or year in college in which this occurred. More than half of the participants (51%) reported at least one grade or year in which they were bullied. The most commonly reported grade specific to teacher bullying was 10th grade and the most commonly reported year in college specific to professor/instructor bullying was sophomore year of college.

Prevalence rates of teacher or professor/instructor bullying of students by sex and disability status are presented in Table 2. Forty-seven percent of female participants reported being bullied by teachers prior to college at least once and 34% of male participants reported being

bullied by teachers [$\chi^2(1, N = 322) = 3.68, p = .055$]; these differences yielded a small effect size ($h = 0.272$). Similarly, 21% of female participants reported being bullied by a college professor/instructor at least once and 9% of male participants reported being bullied by a college professor/instructor [$\chi^2(1, N = 324) = 4.65, p = .031$], yielding a modest effect size ($h = 0.331$). Effect size definitions are based on Cohen's recommendations of small ($h = 0.20$), medium ($h = 0.50$), and large ($h = 0.80$).²⁹

Although limited by the small sample of students with disabilities ($n = 20$), the descriptive differences between students with and without disabilities are notable. Seventy-five percent of students with a documented disability, compared to 42% of students without disabilities, reported being bullied by a teacher prior to college [$\chi^2(1, N = 322) = 8.08, p = .004$] and fifty percent of students with disabilities, compared to 16% of students without disabilities, reported being bullied by a college professor/instructor in college [$\chi^2(1, N = 324) = 14.00, p < .001$]. The differences between students with and without disabilities and their report of teacher and professor/instructor bullying yielded large effect sizes ($h = 0.676$ and $h = 0.737$ respectively).

Psychometrics – Item Analysis & Dimensionality

Item analyses and exploratory PCAs were conducted on the first half of the data ($n = 153$). Items that were redundant, did not load strongly on any component (less than .40), or were complex (loaded on more than one component) were removed. Results of the final PCA run on the remaining 11 items, shown in Table 3, yielded two factors that accounted for 61% of the variance. Factor loadings for each item were high (.60–.96) and inter-item correlations for each component were greater than .40. The first component, labeled Academic Bullying, accounted for 38.7% of the variance and encompassed seven items relating to academic forms of bullying that occur within the classroom and course performance or participation. The second component, labeled Personal Bullying, encompassed four items relating to physical and sexual bullying, as well as bullying with severe consequences (e.g., “Having false allegations made against you by a professor/instructor”) and accounted for 22.4% of the variance.

Cross-validation of the SPPBQ was conducted on the second half of the data ($n = 151$) using CFA. Model fit was assessed using the confirmatory fit index (CFI) and the root mean square error of approximation (RMSEA), with better fit indicated by $CFI > .90$ and $RMSEA < .05$.³⁵ Several alternative measurement models were tested (see Table 4). For each model, the first factor loading was fixed at 1.0 to allow the factor variances to be freely estimated. Results indicated that the correlated two-factor model provided a better fit to the data than the uncorrelated model, based on the χ^2 difference and CFI tests [$\chi^2(1) = 19.39, p < .001$; $CFI = .018$],^{26,35,36} and yielded the closest results to CFI and RMSEA fit standards. The correlated model results are depicted in Figure 1 and show good factor loadings for all items.

Internal consistency analyses conducted on data from the entire sample revealed that Cronbach's coefficient Alpha was satisfactory based on standard recommendations^{24,26} of at least .70 for the components Academic Bullying ($\alpha = .901$), Personal Bullying ($\alpha = .883$) and a global component for all 11 items ($\alpha = .909$). Pearson's bivariate correlation between

Academic Bullying and Personal Bullying was also significant ($r = .564, p < .001$), suggesting the justification for a global component of professor bullying. Additionally, Pearson's bivariate correlation between the total score on the professor section of the SPPBQ and the frequency of being a victim of professor bullying was strong ($r = .553, p < .001$), indicating that having a high score on the professor section of the SPPBQ was related to labeling oneself as a victim of professor bullying. Criterion validity was also satisfactory for Academic Bullying ($r = .591, p < .001$) and Personal Bullying ($r = .289, p < .001$) with frequency of being bullied by professors.

Student Victim Characteristics

Means and standard deviations of overall global ratings of the SPPBQ, which is a composite score on students' perceptions of being bullied by professors/instructors in college, are shown in Table 5. As displayed in Table 6, the ANOVA revealed significant differences for the two main effects: the relationship for perceptions of being bullied by professors/instructors in college was significant for teacher bullying status prior to college with a modest effect size [$F(1, 303) = 15.00, p < .001, \eta^2 = .045, d = 0.296, 95\% \text{ CI } (0.070, 0.522)$] and for sex with a small effect size [$F(1, 303) = 6.36, p = .012, \eta^2 = .019, d = 0.224, 95\% \text{ CI } (-0.053, 0.502)$]. There was also a significant interaction between teacher bullying status and sex with a small effect size [$F(1, 303) = 7.37, p = .007, \eta^2 = .018$] (see Figure 2). A simple effects test was conducted to explore the relationship between these two variables on the perception of professor/instructor bullying. Although there was no significant result for female students [$F(1, 303) = 1.76, ns, d = 0.216, 95\% \text{ CI } (-0.036, 0.468)$], a significant effect was demonstrated for male students with a moderate effect size [$F(1, 303) = 13.40, p < .001, d = 0.614, 95\% \text{ CI } (0.085, 1.142)$]. Therefore, for male students, report of being bullied by teachers prior to college led to higher ratings of perceptions of professor/instructor bullying in college; however, for female students, there was no effect for teacher bullying status prior to college.

Comment

Unfortunately, bullying within school systems is a common problem in the US and in other countries leading to a burgeoning area of research over the past two decades.^{11,37} Comparatively, very little attention has been drawn to the issue of teacher bullying, which may have severe consequences for student victims. Professor/instructor bullying in particular has been largely overlooked and before the present study, only one study had addressed the issue.¹ Therefore, current findings offer important insight and implications for college campuses, as well as professors/instructors and students, and add substantially to the literature.

Prevalence

The rates of bullying reported in the present study speak to the need to reduce professor/instructor and teacher bullying. This study's prevalence rates of professor bullying are remarkably consistent with rates of professor and peer bullying reported previously.¹ Students clearly perceive this phenomenon to be occurring yet little attention has been given to this subject. University administration should be made aware that professor/instructor

bullying is occurring and support systems designed to help students report professor/instructor bullying and mitigate its consequences should be explored. Additional interventions should target professors and instructors, ideally to prevent bullying from occurring. Because the prevalence rates associated with experiences of teacher bullying prior to college were alarmingly high, similar interventions should be implemented to prevent teacher bullying. Future studies might focus their prevention efforts on middle and early high school given students reported being bullied by teachers at high rates during these times

Although previous research suggested male students may be more likely than female students to perceive themselves as victims of teacher maltreatment and bullying in primary and secondary school, research conducted among college students did not find a significant relationship between sex and other bullying variables.¹ The present study yielded mixed findings with regard to sex differences in perceptions of professor/instructor bullying. Specifically, male students reported higher ratings of professor/instructor bullying than female students did when assessed by the SPPBQ, which included the average of all items related to Academic and Personal Bullying. When asked about bullying prevalence, however, male student reports of bullying were actually lower than those reported by females as assessed by a single question addressing the frequency of bullying experiences. Even though the SPPBQ provided a definition to help establish a consistent understanding of bullying, these conflicting ratings may reveal a difference in perceptions in the definition of bullying and reflect an issue with the construct validity of using one item to assess prevalence. Indeed, previous researcher has identified that students might be more hesitant to report being bullied in general compared to reporting on specific components of bullying.³⁸

The current findings also clearly indicate that future research is warranted in the area of teacher and professor/instructor bullying of students with disabilities. The present study's small representation of students with disabilities precludes any definitive conclusions about the likelihood of increased bullying within this population; however, the high frequency at which the students with disabilities reported being bullied by teachers and professors/instructors and the resulting large and consistent effect sizes may serve as a pilot study supporting the need for further exploration.

Finally, the present study's prevalence rates also confirm that peer bullying is occurring at the college level. The estimates of peer bullying in the present study (64%) are comparable to previous findings that 60% of college students reported seeing peer bullying at least once. It is encouraging to note, however, that a small percentage of students reported stopping or attempting to stop professor/bullying from occurring. Student allies may be crucial in the implementation of support groups to encourage anti-bullying climates on college campuses, especially considering that when bystanders do nothing in response to bullying a message of acceptance may be conveyed.³⁷

SPPBQ

The present study offers a new measure, the SPPBQ, to assess professor/instructor bullying as perceived by college students. The SPPBQ could be used as part of an overall campus

climate survey or as a screening tool for university early alert systems. Additional research should explore the SPPBQ's convergent and divergent validity, test-retest reliability, as well as its reliability across different samples. In particular, future research should assess the SPPBQ's two-factor model within samples representing a more heterogeneous college population to determine how the SPPBQ may benefit colleges of varying locations, size, and demographics.

The analyses offer a strong psychometric foundation for the SPPBQ. Although item loadings for the SPPBQ did not remain consistent to the categories developed by Einarsen and colleagues within workplace bullying,³⁰ this is not especially concerning because of the differences implicit within workplace and academic settings (e.g., professors have less time to get to know their students than supervisors in work settings).

Student Victim Characteristics

The finding that college students who reported being bullied by teachers prior to college also reported significantly higher ratings of professor bullying in college is consistent with previous research, which found that 40% of victims of bullying in college were also victims in primary and secondary school.¹ Victims of teacher bullying prior to college may benefit from universal strategies to reduce bullying and reporting mechanisms available to all students.

Findings also indicated that for male students only, report of being bullied by teachers prior to college led to higher ratings of perceptions of professor/instructor bullying in college. Although victims of teacher bullying may remain relatively stable throughout their pre-college education and college experience, future research should explore the different characteristics associated with students who report teacher bullying and professor/instructor bullying compared to those students who report being bullied only in high school or only in college. These findings may help identify students most at risk for professor/instructor bullying and those who appear to overcome teacher bullying.

Limitations

Although the present study attempted to explore the role teachers and professors/instructors may play in bullying, one limitation is that findings may be perceived as a persecution or condemnation of teachers and professors. Nonetheless, it is important to address student experiences and perceptions of teacher bullying.

A second limitation involves the demographics of the final sample. The present study sought out college students representative of the university at large, but the final sample comprised more students with majors in the College of Arts and Sciences than any other college, with 25% of the final sample having a psychology major, and included more females than males. Male and female participants may have been unevenly represented because there were more female than male students in the College of Arts and Sciences (60% and 40% respectively) and among students with Psychology majors (56% and 44%) in the sampled university at the time of data collection. It is encouraging to note, however, that preliminary research has supported that psychology majors and students majoring in other disciplines have similar family environments and personality disorder features.³⁹

Although students of color and students with disabilities were close to the university wide demographics, the findings reflect a sample that is predominantly white/Caucasian and able-bodied, limiting generalizability. In particular, teacher and professor/instructor bullying of college students representative of multiple ethnicities, socioeconomic statuses, and sexual orientations are critical areas for future research. Further, the present study was conducted at only one university in the northeast region of the US and does not represent universities across the country; therefore, the results of the psychometric study may not be generalizable to other universities.

A final study limitation relates to the study design. This study was cross-sectional, precluding conclusions about change over time and stability of the findings, and the retrospective questions related to teacher bullying are limited by students' memory and self-report biases. Furthermore, the present study did not objectively assess if professor/instructor bullying was occurring, but instead relied on student report of perceptions of professor/instructor bullying. Prevalence rates, therefore, reflect student perception of professor/instructor bullying, which may differ from actual incidents of professor/instructor bullying. Specifically, responses may reflect the reactivity and social desirability of participants, i.e., participants may have responded based on what they believed was socially acceptable as opposed to what they truly experienced.⁴⁰

Conclusions

The present study supports that college students clearly perceive teacher and professor/instructor bullying as occurring but may not know how to properly address it. Findings revealed that college students reported alarmingly high rates of being bullied by professors in college and by teachers prior to college. Given the impact professor/instructor relations can have on college student outcomes and the severe consequences teacher bullying has on primary and secondary students, resources for preventing and intervening on such bullying are needed. The SPPBQ was developed to aid universities and researchers in the identification of students being bullied by their teachers and professors. The SPPBQ may also be used in future studies to address additional characteristics of victims of teacher and professor/instructor bullying or as a screening measure to assist in the understanding, prevention and intervention of professor/instructor bullying. Professor/instructor bullying of students is an issue of critical importance and university administrators, faculty and staff, and researchers should be made aware of its occurrence in order to identify and administer effective prevention and intervention efforts.

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References

1. Chapell M, Case D, De la Cruz C, Ferrell J, Forman J, Lipkin R, Newsham M, Sterling M, Whittaker S. Bullying in college by students and teachers. *Adolescence*. 2004; 39:53–64. [PubMed: 15230065]
2. Olweus, D. *Bullying of Students by Teachers*. Bergen, Norway: Alma Mater Forlag; 1996.
3. Brendgen M, Wanner B, Vitaro F. Verbal abuse by the teacher and child adjustment from kindergarten through grade 6. *Pediatrics*. 2006; 117:1584–1599.
4. Pottinger AM, Stair AG. Bullying of students by teachers and peers and its effects on the psychological well-being of students in Jamaican schools. *Journal of School Violence*. 2009; 8:312–327.
5. Twemlow SW, Fonagy P, Sacco FC, Brethour JR. Teachers who bully students: A hidden trauma. *Int J Soc Psychiatry*. 2006; 52:187–198. [PubMed: 16875191]
6. Khoury-Kassabri M, Astor RA, Benbenishty R. Student victimization by school staff in the context of an Israeli national school safety campaign. *Aggressive Behavior*. 2008; 34:1–8. [PubMed: 17486605]
7. Whitney I, Smith PK. A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research*. 1993; 35:3–25.
8. Crick NR, Grotpeter JK, Bigbee MA. Relational and physically aggressive children's intent attributions and feelings of distress for relational and instrumental peer provocations. *Child Dev*. 2002; 73:1134–1142. [PubMed: 12146738]
9. Simpson R, Cohen C. Dangerous work: The gendered nature of bullying in the context of higher education. *Gender, Work and Organization*. 2004; 11:163–186.
10. Wilson JH, Ryan RG, Pugh J. Professor-student rapport scale predicts student outcomes. *Teaching of Psychology*. 2010; 37:246–251.
11. Olweus, D. *Bullying at School*. Cambridge: Blackwell; 1993.
12. James DJ, Lawlor M, Courtney P, Flynn A, Henry B, Murphy N. Bullying behaviour in secondary schools: What roles do teachers play? *Child Abuse Review*. 2008; 17:160–173.
13. Davies, S. Proquest Dissertations and Theses database. 2012. Teacher bullies: A factorial analysis of perceptions of teachers' bullying behaviors. Available from 2012: UMI No. 3469327
14. Terry AA. Teachers as targets of bullying by their pupils: a study to investigate incidence. *Br J of Educ Psychol*. 1998; 68:255–268.
15. McEvoy, A. Teachers who bully students: Patterns and policy implications. Hamilton Fish Institute's Persistently Safe Schools Conference; September 11, 2005; Philadelphia, PA.
16. Whitted KS, Dupper DR. Do teachers bully students? Findings from a survey of students in an alternative education setting. *Education and Urban Society*. 2008; 40:329–341.
17. Benbenishty R, Zeira A, Astor RA, Khoury-Kassabri M. Maltreatment of primary school students by educational staff in Israel. *Child Abuse Negl*. 2002; 26:1291–1309. [PubMed: 12464302]
18. Casarjian, BE. Proquest Dissertations and Theses database. 2000. Teacher psychological maltreatment and students' school-related functioning. Available from (UMI No. 9956340)
19. Khoury-Kassabri M. The relationship between staff maltreatment of students and bully-victim group membership. *Child Abuse Negl*. 2009; 33:914–923. [PubMed: 19892403]
20. Brendgen M, Wanner B, Vitaro F, Bukowski WM, Tremblay RE. Verbal abuse by the teacher during childhood and academic, behavioral, and emotional adjustment in young adulthood. *Journal of Educational Psychology*. 2007; 99:26–38.
21. Delfabbro P, Winefield T, Trainor S, Dollard M, Anderson S, Metzger J, Hammarström A. Peer and teacher bullying/victimization of South Australian secondary school students: Prevalence and psychosocial profiles. *Br J of Educ Psychol*. 2006; 76:71–90. [PubMed: 16573980]
22. Twemlow, SW.; Sacco, FC. *Why School Antibullying Programs Don't Work*. New York, NY: Jason Aronson; 2008.
23. Twemlow SW, Fonagy PF. The prevalence of teachers who bully students in schools with differing levels of behavioral problems. *Am J Psychiatry*. 2005; 162:2387–2389. [PubMed: 16330608]
24. DeVellis, RF. *Scale development: Theory and applications*. Newbury Park, CA: Sage; 1991.

25. Marsh HW, Balla JR, McDonald RP. Goodness-of-fit indices in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*. 1988; 103:391–410.
26. Redding CA, Maddock JE, Rossi JS. The sequential approach to measurement of health behavior constructs: Issues in selecting and developing measures. *Californian Journal of Health Promotion*. 2006; 4:83–101. (WAS 25).
27. Velicer WF, Fava JL. The effects of variable and subject sampling on factor pattern recovery. *Psychological Methods*. 1998; 3:231–251.
28. Bonett DG. Sample size requirements for testing and estimating coefficient alpha. *Journal of Educational and Behavioral Statistics*. 2002; 27:335–340.
29. Rossi, JS. Statistical power analysis. In: Schinka, JA.; Velicer, WF.; Weiner, IB., editors. *Handbook of psychology*. Volume 2: Research methods in psychology. 2nd. Hoboken, NJ: John Wiley & Sons; 2013. p. 71-108. Editor-in-Chief
30. Einarsen S, Hoel H, Notelaers G. Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*. 2009; 23:24–44.
31. O'Connor B. SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments, and Computers*. 2000; 32:396–402.
32. Velicer, WF.; Eaton, CA.; Fava, JL. Construct explication through factor or component analysis: A review and evaluation of alternative procedures for determining the number of factors or components. In: Goffin, RD.; Helmes, E., editors. *Problems and solutions in human assessment: Honoring Douglas Jackson at seventy*. Boston: Kluwer; 2000. p. 44-71.
33. SPSS (Version 21) [Computer software]. Armonk, NY: IBM Corp;
34. EQS (Version 6) [Computer software]. Encino, CA: Multivariate Software, Inc;
35. Noar S. The role of structural equation modeling in scale development. *Structural Equation Modeling*. 2003; 10:622–647.
36. Cheung GW, Rensvold RB. Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*. 2002; 9:233–255.
37. Espelage DL, Swearer SM. Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review*. 2003; 32:365–383.
38. Stockdale MS, Hangaduambo S, Duys D, Larson K, Sarvela PD. Rural elementary students' parents', and teachers' perceptions of bullying. *American Journal of Health Behavior*. 2002; 26:266–277. [PubMed: 12081359]
39. McCray, J.; King, A.; Bailly, M. *Journal Of General Psychology*[serial online]. Vol. 132. Ipswich, MA: PsycINFO; 2005 Apr. General Versus Gender-Specific Attributes of the Psychology Major; p. 139-150. Available from: [Accessed August 13, 2014]
40. Anastasi, A.; Urbina, S. *Psychological testing*. 7th. Upper Saddle River, NJ: Prentice Hall; 1997.

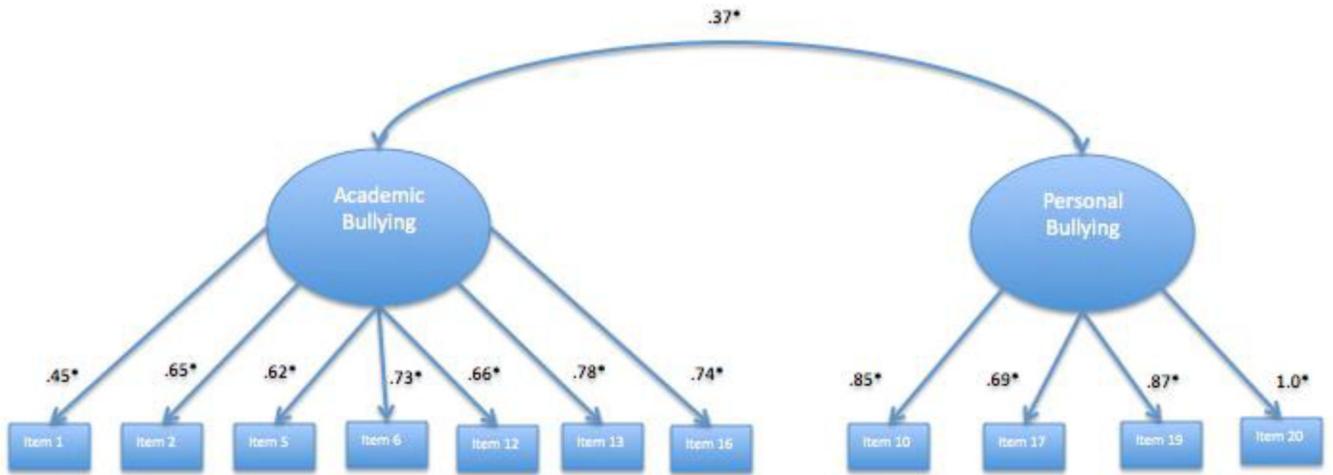


FIGURE 1.
Standardized Maximum Likelihood Parameter Estimates for Correlated Model
* $p < .001$.

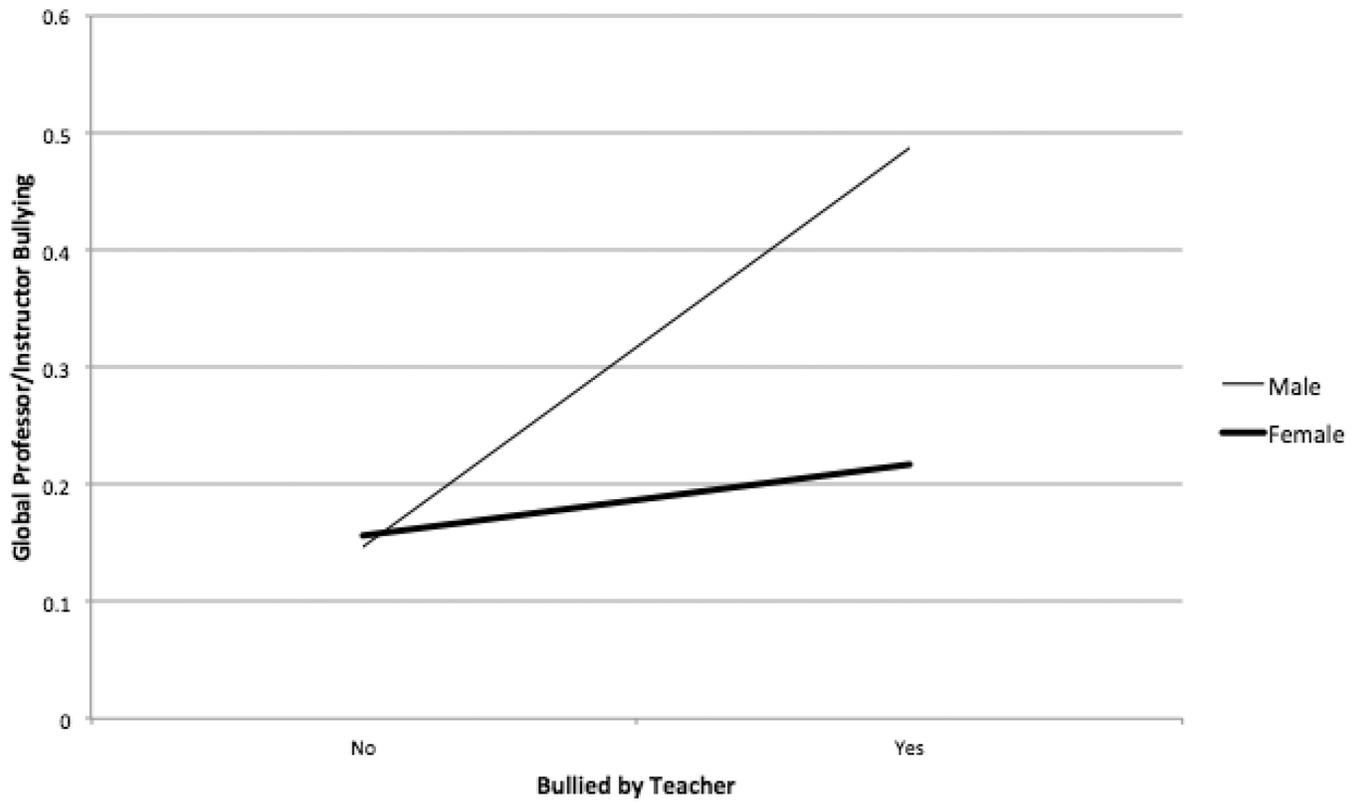


FIGURE 2.
Teacher Bullying Interaction with Sex & Professor/Instructor Bullying

TABLE 1

Frequency of Responses of Students for Bullying Questions

Item	n	Never (%)	Only Once or Twice (%)	Occasionally (%)	Very Frequently (%)
Seen a professor/instructor bullying*	323	49.2	36.5	11.8	2.5
Been bullied by a professor/instructor*	325	81.5	14.5	3.1	0.9
Been bullied by a teacher	323	55.7	32.8	9.6	1.9
Had student stop or attempted to stop professor/instructor bullying*	318	93.4	4.7	1.6	0.3
Stopped or attempted to stop professor/instructor bullying*	320	85.9	10.3	2.5	1.3
Seen peer bullying in college*	312	36.2	32.4	25.3	6.1
Been bullied by peer in college*	311	66.9	24.1	7.4	1.6
Been bully of peer in college*	312	85.3	10.9	3.5	0.3

* since college.

TABLE 2

Teacher and Professor/Instructor Bullying by Sex and Disability Status

Bullying Frequency	Sex				Disability Status				<i>h</i>
	Male <i>n</i>	Male %	Female <i>n</i>	Female %	Yes <i>n</i>	Yes %	No <i>n</i>	No %	
Teacher bullying prior to college									0.676
Never	43	66.2	136	52.9	5	25.0	174	57.6	
At least once	22	33.8	121	47.1	15	75.0	128	42.4	
Professor/Instructor bullying in college									0.737
Never	59	90.8	205	79.2	10	50.0	254	83.6	
At least once	6	9.2	54	20.8	10	50.0	50	16.4	

TABLE 3

Final PCA Results on Exploratory Sample

<i>Item</i>	Academic Bullying	Personal Bullying
1. A professor/instructor withholding information that affects your performance.	.595	-.074
2. Being humiliated or ridiculed by a professor/instructor in connection with your course.	.724	.035
3. Being excluded by a professor/instructor.	.619	.060
4. Having insulting or offensive remarks made about you by a professor/instructor.	.747	.159
5. Being told or hinted by a professor/instructor that you are incompetent.	.694	.153
6. Repeated reminders of your mistakes by a professor/instructor.	.756	.188
7. Having your comments ignored by a professor/instructor.	.711	.186
8. Having a professor/instructor gossip about your sex life or spread rumors about your sexual activities.	.201	.871
9. Having false allegations made against you by a professor/instructor.	.162	.752
10. Threats of violence or physical abuse by a professor/instructor.	.016	.944
11. Acts of violent or physical abuse by a professor/instructor.	.066	.963

Note. $n = 153$. Loadings in bold indicate items retained for that component.

TABLE 4

Summary of Fit Indices for Alternative SPPBQ Models

Models	χ^2	df	Fit Indexes		
			CFI	RMSEA	RMSEA 90% CI
Null	1083.53*	55			
One-Factor	487.81*	44	.568	.254	.233, .274
Two Uncorrelated Factors	195.79*	44	.852	.149	.127, .170
Two Correlated Factors	176.40*	43	.870	.141	.119, .162

Note. df = degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation; CI = confidence interval.

* $p < .001$.

TABLE 5
Means and Standard Deviations of Global SPPBQ for Teacher Bullying and Sex

	Female			Male			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Teacher Bullying									
At least once	116	0.216	0.280	22	0.488	0.839	138	0.260	0.429
Never	128	0.156	0.277	41	0.146	0.323	169	0.154	0.288
Total	244	0.185	0.266	63	0.266	0.577			

TABLE 6

Teacher Bullying and Sex and Professor/Instructor Bullying ANOVA

Source	Sum of Squares	df	Mean Square	F	p	η^2	d	95% Confidence Interval for d	
								Lower	Upper
Bullying	1.867	1	1.867	15.002	<.001	.045	0.296	0.070	0.522
Sex	0.792	1	0.792	6.364	.012	.019	0.224	-0.053	0.502
Bullying \times Sex	0.917	1	0.917	7.366	.007	.022			
Error	37.703	303	0.124						
Total	41.279	307							