

University of Rhode Island

DigitalCommons@URI

Senior Honors Projects

Honors Program at the University of Rhode
Island

12-2019

A Mediation Analysis: Investigating the Role of Academic Self-Efficacy in the Relationship Between Bullying Victimization and Depression

Rachel Elizabeth Doody

University of Rhode Island, rachel_doody@my.uri.edu

Follow this and additional works at: <https://digitalcommons.uri.edu/srhonorsprog>



Part of the [Clinical Psychology Commons](#)

Recommended Citation

Doody, Rachel Elizabeth, "A Mediation Analysis: Investigating the Role of Academic Self-Efficacy in the Relationship Between Bullying Victimization and Depression" (2019). *Senior Honors Projects*. Paper 831. <https://digitalcommons.uri.edu/srhonorsprog/831><https://digitalcommons.uri.edu/srhonorsprog/831>

This Article is brought to you for free and open access by the Honors Program at the University of Rhode Island at DigitalCommons@URI. It has been accepted for inclusion in Senior Honors Projects by an authorized administrator of DigitalCommons@URI. For more information, please contact digitalcommons@etal.uri.edu.

A Mediation Analysis: Investigating the Role of Academic Self-Efficacy in the Relationship
Between Bullying Victimization and Depression

Rachel E. Doody

The University of Rhode Island

Abstract

Bullying is one of the most pervasive problems faced during childhood. Bullying victimization has been demonstrated to be strongly associated with numerous mental health outcomes, including depression. Research suggests that self-efficacy may play a role in the relationship between bullying victimization and depressive symptoms. The present study hypothesized that academic self-efficacy would mediate this relationship. Participants ($N=206$, $M_{\text{age}} = 19.5$, 70.4% female) were college students who completed the Bullying and Relationship Scale – Revised, Center for Epidemiologic Studies Depression Scale, and Self-Efficacy Questionnaire. Regression analyses indicated that the overall regression model was significant ($\beta = .19$, $t(106) = 6.823$, $p < .00$). Paths between experiences of bullying and self-efficacy ($\beta = -0.15$, $p < .01$) and self-efficacy and depressive symptoms ($\beta = -0.13$, $p < .001$) were also significant. Additionally, the path between experiences of bullying and depressive symptoms remained significant ($\beta = .17$, $p < .01$), indicating partial mediation. Implications are discussed.

Keywords: bullying victimization, depression, self-efficacy, mediation

A Mediational Analysis: Investigating the Role of Academic Self-Efficacy in the Relationship Between Bullying Victimization and Depression

In the United States, bullying is the most pervasive discipline problem in public schools, with one in five students reporting bullying victimization in the last year (Center for Disease Control, [CDC] 2018). Reports of bullying are highest for middle schools (22%) compared to high schools (15%), combined schools (11%), and primary schools (8%) (CDC, 2018). High prevalence rates suggest that bullying is a major public health concern, especially when the incidence of bullying may have increased over the past decades (Cosma, Whitehead, Neville, Currie, & Inchley, 2017). Bullying victimization has been characterized by intentional and repeated acts of direct or indirect aggression on an individual by their peers (Olweus, 1993). Direct acts of bullying include physical aggression whereas indirect acts refer to mental or verbal abuse (Schoeler, Duncan, Cecil, Ploubidis, & Pingault, 2018). Definitions of bullying victimization commonly include an imbalance of power between the aggressor and victim (Aalsma & Brown, 2008). For example, individuals acting as a bully may be of older age, larger size or have a social status advantage. This imbalance of power is essential in order to discriminate between bullying and other acts of violence (Aalsma & Brown, 2008).

Bullying is not an act without consequence for victims. An international comparative cross-sectional study compared the health among bullied adolescents across 28 countries, concluding that there was a strong consistent correlation between bullying victimization and 12 negative physical and mental health outcomes in every country such as headache, stomach ache, difficulty in getting to sleep, loneliness, helplessness and bad temper (Due et al, 2005). Bullying

experiences have also been found to increase the risk of developing mental health problems including depression, anxiety, self-harm, violence and suicide (CDC, 2018). A meta-analysis, using quasi experimental analyses, yielded results that bullying victimization may causally impact a child's short-term well-being, especially levels of anxiety and depression (Schoeler, Duncan, Cecil, Ploubidis, & Pingault, 2018). Schoeler et al. (2018) also noted that young victims showed long-term behavioral and emotional problems in school as a result of the psychological distress caused by bullying, including but not limited to depression, anxiety, suicidality, conduct problems, hyperactivity and substance abuse.

Bullying victimization has also been shown to affect mental health outcomes on a long-term basis. Victims of passive bullying during childhood were still negatively affected later in life with regards to suicidality, where bullied children were three times as likely to have attempted suicide before the age of 20 (Staubli, S., & Killias, M. 2011). Although this relationship is not causal, evidence shows that bullying victimization is a risk factor for developing depression or depressive symptoms later in life. Hashorva, Pengili, Lici & Prifti, 2017, in a longitudinal study of 177 school children, found that this group was six times more likely to have a serious physical illness or develop a psychiatric disorder in adulthood than those not involved in bullying experiences. This study also noted that bullying can have negative effects on the social, physical and mental health up to 40 years after victimization (Hashorva, Pengili, Lici & Prifti, 2017). Similarly, a retrospective analysis of 6094 Danish individuals, controlling for social class standing and parental mental health, found that individuals exposed to bullying in public schools were at a significantly increased risk of being diagnosed with depression between the ages of 31–51 (Lund et al, 2009). Klomek et. al (2011) concluded that

students who experienced bullying victimization alongside depression or suicidality as children were significantly more impaired four years later than those who did not experience bullying but were already at risk for depression. These findings demonstrate the ability for bullying to potentially exacerbate the severity of mental health conditions that are already present in an individual. Evidence has demonstrated the significant relationship between victimization and depression, calling for a movement to identify what victimized children and their families can do to protect against the development of poor mental health.

For undetermined reasons, victimization has affected children differently, with some suffering more distress and worse outcomes than others (Singh & Bussay, 2011). This variability in outcomes has led researchers to address possible underlying processes that may serve to mediate or intervene on the relationship between bullying and developing depression. Research has shown that resilience partially mediated and mindfulness moderated the relationship between bullying victimization and depression (Zhou, Liu, Niu, Sun, & Fan, 2017). Perceived social support has also been examined in the relationship between bullying victimization and depression later in life. Perceived social support was found to be protective against the development of anxiety yet has inconsistently been found to protect against depression (Reid, Holt, Bowman, Espelage & Green, 2016 & Ruiz, Oteiza-Nascimento, Toldos, Serrano-Marugán, & Martín-Babarro, 2018). Although these factors help to explain the relationship, further research and analysis is needed in order to better develop intervention programs to lessen negative psychological experiences and outcomes.

Self-efficacy, the belief in one's ability to complete a goal, has also been investigated to determine its role in the victimization and depression relationship. Singh and Bussey (2011) used

a mediational analysis of coping self- efficacy on the relationship between peer victimization and psychological maladjustment in a sample of 2,161 children ranging from 10 to 15 years old.

Their results demonstrated that self-efficacy mediated the relationship between peer victimization and social anxiety, cognitive depression, and externalizing symptoms (Singh & Bussey, 2011). With regards to depression, cognitive self-efficacy domains were the only mediators for the relationship between peer victimization and cognitive depression, suggesting that the inner logic and reasoning, rather than actions, lead to feelings of depression (Singh & Bussey, 2011). Using a longitudinal, two time point mediational analysis in a sample of 1167 secondary school children, a similar study measured peer victimization, depression, rumination, self-efficacy to enlist support, and collective school efficacy, the belief that students can work with teachers to stop school aggression, to evaluate their roles as potential mediators between victimization and depression (Barchia & Bussey, 2010). Rumination, collective school efficacy, and self-efficacy to enlist support from a friend partially mediated the relationship between victimization and depression (Barchia & Bussey, 2010). Although these studies include aspects of self-efficacy, no studies to date have considered how self-efficacy in academic achievements and tasks may play a role in victimization and developing depression later in life. The school environment in which bullying often takes place is the same environment that was created in order for individuals to learn and improve upon their academic skills.

Although the relationship between bullying victimization and the development of depression later in life have been well-established, few studies have investigated the possible mediating role of academic self -efficacy on the relationship between bullying victimization and depression. The current study was designed to investigate the hypothesis that one's academic self

-efficacy would partially mediate the relationship between a self-reported history of past and present bullying experiences (in elementary school, secondary school, high school or college) and current depression levels. The aim of this study is to add to the current literature surrounding the relationship between bullying and developing mental health problems, as well as the possible mediating effects role of self-efficacy.

Method

Participants

Following approval from the Institutional Review Board (IRB), young adult undergraduates were recruited at a mid-sized northeastern university. Participants between the ages of 18 and 23 were recruited through undergraduate-level psychology courses. Course instructors were emailed the recruitment flyer, which contained a direct link to the Qualtrics study. Recruitment strategies included a PowerPoint display of the recruitment flyer as well as in-class and email announcements.

A total of 282 participants completed the study; 206 participants were included in the final sample. Seventy-six participants were excluded because they left numerous items blank, or they failed to complete the BSRS-R, ERQ or the CES-D survey in their entirety. Participant ages ranged from 18 to 24 years ($M = 19.5$, 84% female). The majority of participants who sufficiently completed all three measures identified as White (75.6%). Remaining participants identified as Black/African American (9.5%), Other (5.5%), Multi - Racial (5%), Asian (3.5%) American Indian/Alaskan Native (.5%), Native Hawaiian/ Other Pacific Islander (.5%). The majority of participants identified as Non-Hispanic/Latinx ethnicity (87.3%) whereas 26 participants identified as Hispanic/Latinx ethnicity (12.7%). The majority of participants identified as Freshman/First Year (36.1%). The remaining participants classified their college

years as a Sophomore/Second Year (32.2%), Junior/Third Year (23.9%), Senior/ Fourth Year (7.3), and Unclassified/Non-degree (.5%). See Table 1.

Table 1.
Demographic information of participants

	Total (N = 206)
Mean age (years)	19.5
Gender	
Female	70.4%
Male	14.6%
Transgender Male	1.0%
No Listed Above	0.5%
Race	
White	75.6%
Black/African American	9.5%
Asian	3.5%
American Indian/Alaskan Native	0.5%
Native Hawaiian/Other Pacific Islander	0.5%
Multiracial	5.0%
Other,	5.5%
Hispanic or Latinx	12.7%
College Classification	
Freshman/ First Year	36.1%
Sophomore/Second Year	32.2%
Junior/ Third year	23.9%
Senior/ Fourth Year	7.3%
Unclassified/Non-degree	0.5%

Measures

Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D (Radloff, 1977) is a 20-item questionnaire designed to measure self-reported depression symptoms in the

general population (Radloff, 1977; González, P. et al., 2017 & Perreira, Deeb-Sossa, Harris, & Bollen, 2005). Respondents are asked to indicate how often they have experienced each symptom over the past week. The items are rated on a 4-point Likert-type scale, with options ranging from 0 (*Rarely or None of the Time*) to 3 (*Most or All of the Time*). The CES-D includes items that address multiple symptoms of depression such as, “I felt lonely,” “I talked less than usual,” “I felt like everything I did was an effort,” and “I could not shake off the blues even with help from family or friends.” Total scores may range from 0 to 60, with higher scores indicating greater endorsement of depressive symptoms.

The CES-D is the most widely used instrument for screening symptoms of depression and has been well-validated in differentiating between people with and without depressive symptoms (González, et al., 2017; Demirchyan, Petrosyan, & Thompson, 2011). The measure has been used to assess depression symptoms across multiple populations including adolescents, elderly, clinical, and nonclinical populations (González, et al., 2017; Perreira, Deeb-Sossa, Harris, & Bollen, 2005). The measure has displayed strong internal consistency (Cronbach’s $\alpha = .85$.) as well as satisfactory test- retest reliability ranging from 2 weeks to three months (Hann, Winter, & Jacobsen, 1999). For the current study, depressive symptoms were scored continuously using the overall score on the CES-D.

Self-Efficacy Questionnaire (SEQ). The SEQ (Erickson, Soukup, Noonan, & McGurn, 2016) is a 13-item self-report questionnaire designed to measure a student’s perceived academic self-efficacy. The SEQ was developed based on an exhaustive review of relevant literature that resulted in the identification of two essential self-efficacy components: (1) the belief that ability can grow with effort and (2) the belief in one’s personal ability (Gaumer Erickson, 2016). Participant responses are rated on a 5-point Likert-type scale with responses ranging from 1 (*Not*

very like me) to 5 (*Very like me*). The SEQ includes items that address the subtypes of academic self-efficacy including, “I can figure out anything if I try hard enough,” “I believe hard work pays off,” “When I’m struggling to accomplish something that’s important to me, I keep trying to accomplish it, even if it’s harder than I thought” and “I will succeed in whatever career path I choose.” Total scores, when taking into account both scales, range from 13 to 65 and are converted to a 0 - 100 point scale for easy interpretation, with higher scores indicating greater endorsement of academic self-efficacy.

The SEQ contains two subsets based off of the two essential self-efficacy components, a belief in personal ability scale and belief that ability grows with effort scale. The personal ability scale contains 8 items, that yield moderately strong internal consistency ($\alpha = .85$) (Gaumer Erickson, 2016). Moderately strong ($\alpha = .80$) internal consistency estimates were shown in the 5 item, ability grows with effort scale. (Gaumer Erickson, 2016). The overall self-efficacy questionnaire, that encompasses both subsets, has shown high reliability ($\alpha = .90$) (Gaumer Erickson, 2016). For the purpose of this analysis, academic self-efficacy was scored continuously using the overall score on the SEQ.

Bullying and Relationship Scale - Revised (BRS-R) The BRS-R (Jantzer & Cashel, 2017) is a self-report measure designed to measure bullying victimization experiences for college-age students. Respondents are asked to retrospectively reflect upon past bullying experiences from elementary school to college (Jantzer & Cashel, 2017). The 24-items are rated on a 6-point Likert-type scale, with response options ranging from 1 (*Strongly Agree*) to 6 (*Strongly Disagree*). The BRS-R uses time-dependent categories over four different time periods including: elementary school, junior high/middle school, high school, and current experience in college. The items address aspects of bullying victimization, such as, “In elementary school, I

was physically hit and/or kicked, poked, shoved, etc. by other students at least once per week,” “During my high school years, students spread rumors about me at least once a week” and “According to my experiences NOW, I was physically hit and/or kicked, poked, shoved, etc. by other students at least once per week.” The BRS-R produced evidence of adequate internal consistency (Cronbach’s $\alpha = .85$) (Jantzer & Cashel, 2017).

Procedures

Participant data were collected through an online survey and questionnaire software, Qualtrics. To ensure confidentiality, no identifying information or IP addresses were collected by researchers. Interested students were offered extra credit as compensation for their participation. Prior to beginning the online survey, participants completed an online consent form, which prompted them to check boxes at the bottom of the form indicating that they fully understood the consent form and consented to participate in the study. The consent form emphasized that non-participation or withdrawal from the study would not affect participants’ class grades in any way. An alternative writing assignment, consisting of reading a peer reviewed article and completing a brief reflection, was offered for the same amount of extra credit. This was done to ensure that students did not feel pressured or coerced to complete the study. Students who indicated their consent were then asked to complete a series of questionnaires, including the CESD, ERQ and BRS-R, which took approximately 30 to 45 minutes.

Analysis

Analyses were conducted using IBM SPSS Version 26 (IBM Corp.). Bivariate correlation analyses were conducted to determine the relationship between past bullying experiences (BSRS-R), perceived self-efficacy (SEQ) and current depression symptoms (CES-D). A linear regression analysis was conducted to investigate if past bullying experiences predict depression

later in life. Regression analyses were conducted to determine if academic self-efficacy served as a mediator in the relationship between bullying victimization experiences and current depressive symptoms.

Results

Preliminary Analyses

Mean scores. Participant scores on the BRS-R ($M = 48.1$, $SD = 26.8$) ranged from 24-132, out of a maximum score of 144, with higher scores indicating greater experiences of bullying victimization. Males reported similar scores ($M = 52.9$, $SD = 33.4$) to females ($M = 47.1$, $SD = 25.3$). Scores on the CES-D ($M = 17.1$, $SD = 11.4$) ranged from 0 to 56 out of a maximum score of 60, with higher scores indicating greater symptoms of depression. Here, females reported similar scores ($M = 17.4$, $SD = 11.5$) compared to males ($M = 15.7$, $SD = 11.9$). Participant scores on the SEQ ($M = 78.6$, $SD = 15.8$) ranged from 20 to 100, out of a maximum score of 100, with higher scores indicating a greater perception of academic self-efficacy. Again, females reported similar scores ($M = 79.6$, $SD = 15.2$) to male participants ($M = 74.3$, $SD = 19.0$) (See Table 2).

Table 2.
Means and Standard Deviations of Scores by Gender

<i>Measure</i>	<i>Gender</i>	<i>Mean</i>	<i>Standard Deviation</i>
BRS-R	Male	52.9	33.4
	Female	47.1	25.3
	Total	48.1	26.8
CES-D	Male	15.7	11.1
	Female	17.4	11.5
	Total	17.2	11.4
SEQ	Male	74.3	19.0
	Female	79.6	15.2
	Total	78.6	15.8

Bivariate Correlations. Significant bivariate correlations were observed between variables (See Table 3). Experiences of bullying victimization ($M = 48.1$, $SD = 26.8$), and current depressive symptoms ($M = 17.1$, $SD = 11.4$) were significantly correlated ($r = .416$, $p < .01$) with higher levels of bullying experiences indicating higher levels of depression. Experiences of bullying victimization and perceived academic self-efficacy ($M = 78.6$, $SD = 15.8$) were significantly and negatively correlated ($r = -.257$, $p < .01$) indicating that individuals reporting higher levels of bullying victimization also reported lower levels of academic self-efficacy. Academic self-efficacy was also significantly and negatively correlated with current

depression symptoms ($r = -.256, p < .01$) indicating that participants endorsing greater symptoms of depression, also endorsed lower levels of academic self-efficacy.

Table 3.
Correlation Matrix of Variables

	1.	2.	3.
1. <i>BRS-R</i>	1		
2. <i>CES-D</i>	.416*	1	
3. <i>SEQ</i>	-.256*	-.257*	1

*Correlation is significant at $p < .01$

Linear Regression. A simple linear regression analysis was conducted to predict depressive symptoms based on past bullying experiences ($b = .42, t(213) = 5.51, p < .001$). A significant regression equation was found ($F(1,213) = 44.584, p < .001$, with an R^2 of .173).

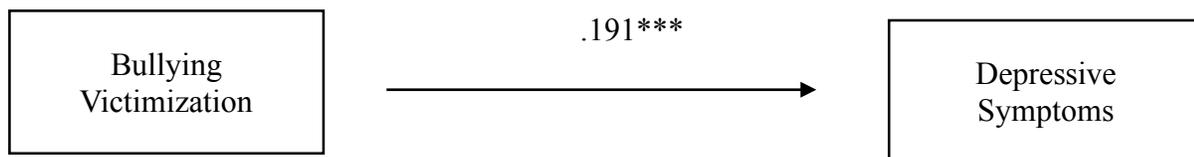
Mediation Analysis

For the primary hypothesis, mediation was tested using a series of regression analyses. In Step 1 of the mediation model, a regression analysis was conducted to confirm the relationship of the IV (past bullying experiences) and the DV (symptoms of depression). In Step 2, another regression analysis was conducted to confirm the relationship between the IV and the mediator (academic self-efficacy). In Step 3 of the regression analysis, the significance of the relationship between the mediator and DV in the presence of the IV was measured. In the final step, a regression analysis was conducted to confirm the significance of the relationship between the IV and the DV in the presence of the mediator. Full mediation is present when the effect of the IV

on the DV is no longer significant in the presence of the mediator (Tofighi, Thoemmes, Toland, & Peugh, 2014).

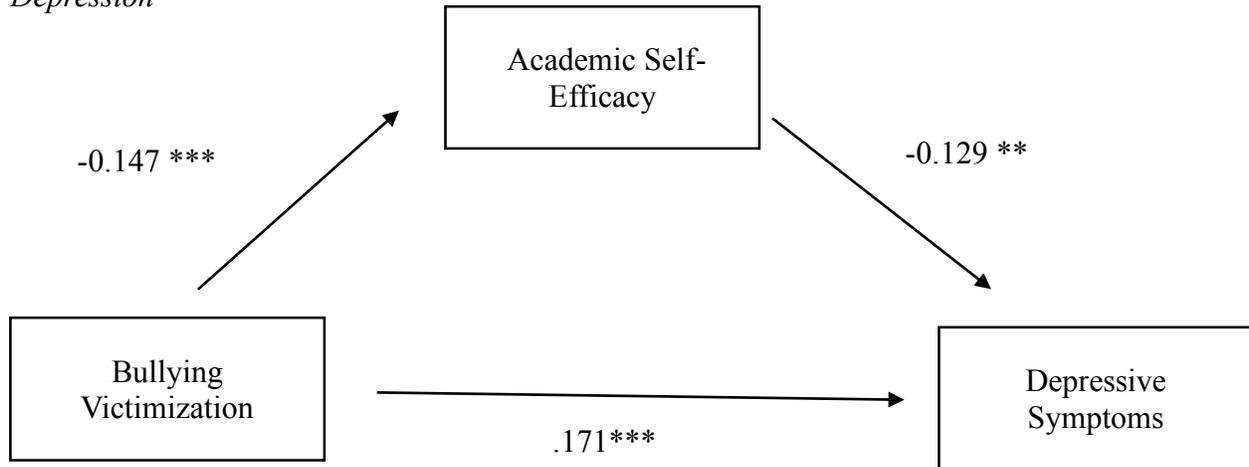
Mediation analyses were conducted to explore the hypothesis that academic self-efficacy mediates the relationship between bullying victimization and current symptoms of depression. Results of the regression analyses revealed that academic self-efficacy partially mediated the relationship between experiences of bullying victimization and current depressive symptoms. In Step 1, the overall model of the mediation analysis indicated that the regression of bullying victimization on current symptoms of depression was significant ($\beta = .19, t(106) = 6.823, p < .001$) (See Figure 1). Step 2 demonstrated that the regression of bullying victimization on academic self-efficacy was also significant ($\beta = -0.15, t(106) = -3.56, p < .01$). Similarly, step 3 revealed that the total effect of academic self-efficacy on current depressive symptoms was significant ($\beta = -.13, t(105) = -2.75, p < .001$). In the final step, the effect of bullying victimization predicting current depressive symptoms remained significant when controlling for academic self-efficacy ($\beta = .17, t(105) = 6.06, p < .01$) (See Figure 2). Inclusion of academic self-efficacy accounted for an additional $\beta = .02$, indicating a very small univariate effect. The Sobel Test revealed that the indirect effect of bullying victimization on current depressive symptoms was significant ($z = -3.20, p < .001$), indicating that academic self-efficacy partially mediated the relationship between bullying victimization experiences and current depressive symptoms.

Figure 1. *Total Effect of Bullying Victimization on Current Symptoms of Depression*



Note. *** $p < .001$

Figure 2. *Self- Efficacy as a Mediator Between Bullying Victimization and Current Symptoms of Depression*



Note. *** $p < .001$, ** $p < .01$

Discussion

Experiences of bullying victimization are associated with numerous negative psychological outcomes, including the development of depressive symptoms later in life. The aim of this study was to explore the mediating effect of academic self-efficacy to better understand its role in the relationship between bullying experiences and current symptoms of depression.

Consistent with our hypothesis, academic self-efficacy was found to partially mediate the relationship between bullying victimization and current symptoms of depression. More specifically, the endorsement in the belief that one's ability can grow with effort and the belief in one's personal ability partially mediated bullying experiences and symptoms of depression in this study. Results are consistent with Barchia and Bussey (2010) who concluded that collective school efficacy and self-efficacy to enlist support from a friend partially mediated the relationship between victimization and depression. It is possible that a person's self-efficacy to

enlist external support, as explored by Barchia and Bussey, is equally important to one's evaluation of internal abilities, as assessed by the SEQ in our study, when evaluating mediating effects between bullying victimization and depression.

Our results are somewhat inconsistent when compared to previous studies. Singh and Bussey (2011) determined that the cognitive self- efficacy domain of avoiding self-blame, rather than domains of proactive behavior, avoiding aggressive behavior, and victim role disengagement, was the only mediator for the relationship between peer victimization and depression. Their results suggest that that only self-efficacy domains related to inner logic and reasoning, rather than actions, impacted feelings of depression (Singh & Bussey, 2011) Our findings do not align with Singh and Bussey (2011), as the SEQ used in this study assesses both cognitive aspects (thoughts of one's personal ability to perform) and behavioral aspects (that one's ability can grow with effort) of academic self-efficacy (Gaumer Erickson, 2016). Therefore, our finding of academic self-efficacy as a partial mediator is evidence that both cognitive and behavioral self-efficacy components may impact symptoms of depression after an individual has been bullied. The variation between results may be explained by the fact that Singh and Bussey were unable to administer a complete measure of depression due to time constraints of their study.

The limitations of the present study should be considered when interpreting results. The cross-sectional nature of this study means that no causal relationships between variables can be inferred. The measure of bullying victimization (BRS-R) was a retrospective self-report measure assessing the frequency of victimization which may have occurred recently or several years prior to the date completed. It is possible that the scores on this measure, which did not endorse overall high levels of victimization, may be subject to response bias. Response bias may appear

as an under-endorsement of bullying if participants did not personally feel that bullying had affected their life or if they had trouble recalling events dating back to elementary school.

Another significant limitation of this sample is that participants were overall not very ethnically or racially diverse. The majority of participants were white, female undergraduate students in a Northeastern University and the results may not be generalizable to populations that differ from this sample.

This study has focused on the role of self-efficacy in adulthood. Future studies should investigate the role of academic self-efficacy in younger populations in order to implement interventions to help strengthen this skill in children and adolescents. Implementing interventions at the school-age level rather than in adulthood may further decrease the risk for developing depression if a child is a victim of bullying. Future studies should also assess other mental health strategies that could be fostered alongside self-efficacy, in order to further explain the variance in outcomes for individuals who have been victimized. It is likely that many factors are at play in this relationship. Developing a more complete model of this relationship can help identify which factors are at play in developing depression after experiences of bullying victimization.

References

- Aalsma, M. C., & Brown, J. R. (2008). What is bullying? *Journal of Adolescent Health, 42*(2), 101-102.
- Barchia, K., Bussey, K. (2010). The psychological impact of peer victimization: Exploring social-cognitive mediators of depression. *Journal of Adolescence, 33*(5), 615-623, <https://doi.org/10.1016/j.adolescence.2009.12.002>.
- Center for Disease Control and Prevention. (2018). *Preventing Bullying*. Retrieved From, <https://www.cdc.gov/violenceprevention/pdf/bullying-factsheet508.pdf>
- Cosma, A., Whitehead, R., Neville, F., Currie, D., & Inchley, J. (2017). Trends in bullying victimization in Scottish adolescents 1994–2014: Changing associations with mental well-being. *International Journal of Public Health, 62*, 639–646.
- Demirchyan, A., Petrosyan, V., & Thompson, M., E. (2011). Psychometric value of the Center for Epidemiologic Studies Depression (CES-D) scale for screening of depressive symptoms in Armenian population. *Journal of Affective Disorders, 133*(3), 489-498. <https://doi.org/10.1016/j.jad.2011.04.042>.
- Due, P., Holstein B. E., Lynch, J., Diderichsen, F., Nic Gabhain, S., Scheidt, P. & Currie, C. (2005). Bullying and symptoms among school-aged children: international comparative cross sectional study in 28 countries. *European Journal of Public Health, 15*(2), 128–132, <https://doi-org.uri.idm.oclc.org/10.1093/eurpub/cki105>
- Gaumer Erickson, A. S., Soukup, J. H., Noonon, P. M., & McGurn, L. (2016). *Self- Efficacy Questionnaire*. Lawrence, KS: University of Kansas, Center for Research on Learning. Retrieved from <http://researchcollaboration.org/uploads/Self- EfficacyQuestionnaire.pdf>

- González, P., Nuñez, A., Merz, E., Brintz, C., Weitzman, O., Navas, E. L., ... Gallo, L. C. (2017). Measurement properties of the Center for Epidemiologic Studies Depression Scale (CES-D 10): Findings from HCHS/SOL. *Psychological Assessment, 29*(4), 372–381. <https://doi-org.uri.idm.oclc.org/10.1037/pas0000330>
- Hann, D., Winter, K. & Jacobsen, P. (1999). Measurement of depressive symptoms in cancer patients: Evaluation of the center for epidemiological studies depression scale (Ces-d). *Journal of Psychosomatic Research, 46*(5), 437-443 [https://doi.org/10.1016/S0022-3999\(99\)00004-5](https://doi.org/10.1016/S0022-3999(99)00004-5).
- Hashorva, A., Pengili, T., Lici M. & Prifti, I. (2017). What are the mental health impacts on adults coming from childhood bullying? *European Psychiatry, 40*, S129-S130. <https://doi.org/10.1016/j.eurpsy.2017.01.1942>
- Jantzer, A.M., & Cashel, M.L. (2017). Bullying Victimization, College Adjustment, and the Role of Coping. *Journal of College Student Development 58*(2), 283-289. doi:10.1353/csd.2017.0020.
- Klomek, A. B., Kleinman, M., Altschuler, E., Marrocco, F., Amakawa, L., & Gould, M. S. (2011). High School Bullying as a Risk for Later Depression and Suicidality. *Suicide & Life-Threatening Behavior, 41*(5), 501–516. <https://doi-org.uri.idm.oclc.org/10.1111/j.1943-278X.2011.00046.x>
- Lund, R., Nielsen, K. K., Hansen, D. H., Kriegbaum, M., Molbo, D., Due, P. & Christensen, U. (2009). Exposure to bullying at school and depression in adulthood: A study of Danish

- men born in 1953. *European Journal of Public Health*, 1 (1), 111–116. <https://doi-org.uri.idm.oclc.org/10.1093/eurpub/ckn101>
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Malden, MA: Blackwell Publishing Inc.
- Perreira, K. M., Deeb-Sossa, N., Harris, K. M., & Bollen, K. (2005). What are we measuring? An evaluation of the CES-D across race/ethnicity and immigrant generation. *Social Forces*, 83, 1567–1601. 10.1353/sof.2005.0077
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.
- Reid, G. M., Holt M. K., Bowman, C. E., Espelage, D. L. & Green, J. G. (2016). Perceived social support and mental health among first-year college students with histories of bullying victimization. *Journal of Child and Family Studies*, 25(11), 3331- 3341.
- Ruiz, A. P., Oteiza-Nascimento, A., Toldos, M. P., Serrano-Marugán, I., & Martín-Babarro, J. (2018). Bullying and depression: the moderating effect of social support, rejection and victimization profile. *Anales De Psicología / Annals of Psychology*, 35(1), 1-10.
- Schoeler, T., Duncan, L., Cecil, C. M., Ploubidis, G. B., & Pingault, J.-B. (2018). Quasi-experimental evidence on short- and long-term consequences of bullying victimization: A meta-analysis. *Psychological Bulletin*, 144(12), 1229–1246.
- Singh, Puneet & Bussey, Kay. (2011) Peer victimization and psychological maladjustment: The mediating role of coping self-efficacy. *Journal of Research on Adolescence*, 21(2), 420-433.

- Staubli, S., & Killias, M. (2011). Long-term outcomes of passive bullying during childhood: Suicide attempts, victimization and offending. *European Journal of Criminology*, 8(5), 377–385. <https://doi.org/10.1177/1477370811415761>
- Tofighi, D., Thoemmes, F., Toland, M., & Peugh, J. (2014). Single-Level and Multilevel Mediation Analysis. *The Journal of Early Adolescence*, 34(1), 93-119.
- Zhou, Z. K., Liu, Q. Q., Niu, G. F., Sun, X. J. & Fan, C. Y. (2017). Bullying victimization and depression in Chinese children: A moderated mediation model of resilience and mindfulness. *Personality and Individual Differences*, 104, 137-142. <https://doi.org/10.1016/j.paid.2016.07.040>.