



# School Victimization, School Belongingness, Psychological Well-Being, and Emotional Problems in Adolescents

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## Abstract

Although victimization is a serious problem in children and adolescents, research has commonly focused on risk factors and consequences of this experience and largely ignored factors that protect youth mental health and well-being from the effects of victimization. The purpose of the present study sought to investigate the longitudinal mediating effect of school belongingness on the association of school victimization with emotional problems and psychological well-being among Turkish adolescents. Using the short-term longitudinal approach, data was collected from 282 students in a public secondary school in an urban city of Turkey at two different time points. Students responded to questions concerning school belongingness, emotional problems, psychological well-being, and school victimization. Mediation analyses were conducted across the two waves of data. Findings revealed that both victimization and a low sense of belonging were independently shown to be significantly negatively correlated with emotional problems and positively correlated with psychological well-being. Results also demonstrated that victimized students who feel a sense of belonging to their school display fewer emotional problems and greater well-being than those who are victimized but do not feel a sense of belonging to their school.

**Keywords** School belongingness · School victimization · Psychological well-being · Mental health

School victimization encompasses a variety of physical and non-physical behaviors (e.g., being pushed or verbally abused and social isolation) that occur within the school setting (Lenzi et al. 2015). Additionally, it is a worldwide public health concern

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because of its detrimental impact on student psychosocial adjustment and well-being, as well as academic functioning (Huang and Cornell 2015; Nansel et al. 2004). Victimization is characterized by cruel or unjust interaction between a victim and a perpetrator (i.e., bullying others; Olweus 2010), and this interaction not only influences adjustment and school functioning of victimized youths but is also closely associated with various developmental outcomes of the perpetrators (Alikasifoglu et al. 2007; Nansel et al. 2004; Swearer et al. 2010). Findings from past studies have revealed that victimization is associated with a range of physical, psychosocial, behavioral, and school-based outcomes, including the psychological well-being of victims (Arseneault et al. 2010; Lenzi et al. 2015; Liu et al. 2020; O'Brennan and Furlong 2010; You et al. 2008). Victimized children and adolescents, for example, report greater emotional and behavioral problems (e.g., conduct problems, substance use, and depression) and less psychological well-being compared with those who are non-involved.

Although victimization is a serious problem in children and adolescents, research on school victimization has commonly focused on risk factors and consequences of this experience. Fewer have given attention to factors that protect youth mental health well-being from the effects of victimization. There is a need to better understand these factors in order to develop effective prevention and intervention strategies to avert school victimization and foster the mental health and well-being of students in schools. Thus, the objective of the present study was to explore how school belongingness, a widely identified protective factor for mental health (Allen et al. 2018b, c; Arslan et al. 2020), affects the link between school victimization and both psychological well-being and emotional problems among Turkish adolescents.

## 1 School Victimization and School Belongingness

School victimization is associated with greater emotional problems and lower levels of well-being outcomes. Victimized youths are more likely to report greater psychological difficulties, such as depressive symptoms, anxiety, somatization, and panic disorder, as well as poorer psychological, social, and emotional well-being compared to those who are non-involved. Specifically, victims of bullying commonly report anxiety, depression, suicidal behavior, and somatic symptoms (e.g., withdrawal, loneliness; Alikasifoglu et al. 2007; Liu et al. 2020; Moore et al. 2012; Moore et al. 2017; Salmon et al. 1998; van Geel et al. 2014). For example, Fekkes (2006) indicated that youths with depressive disorders and anxiety were more likely to have had victimization experiences than those without these symptoms. Similarly, Arslan et al. (2012) showed that victimized Turkish students reported more somatic (e.g., stomachaches, headaches, dizziness) and psychological symptoms (e.g., loneliness, nervousness, irritability) compared with those who were not bullied. Moreover, a significant association was found between victimization and both suicidal ideation and suicide attempts among adolescents (van Geel et al. 2014). Alikasifoglu et al. (2007) showed that adolescents involved in victimization experiences were more likely to report higher frequencies of internalized and externalized problems, greater risk behaviors (e.g., substance use, physical fights), and more difficulties in their social relationships than their non-involved peers. Longitudinal studies have also supported these cross-sectional

outcomes, indicating the significant association between victimization and a range of emotional and behavioral adjustment outcomes (Bender and Lösel 2011; Gibb et al. 2011; Hemphill et al. 2011; Ttofi et al. 2011). Therefore, the victimization experience is not only related to impairment in current psychosocial functioning and adjustment of adolescents but is also a serious risk factor for a student's emotional adjustment and well-being in adulthood.

Given the consequences of victimization, adolescents who are victims are more likely to have a diminished sense of belonging in school (Holt and Espelage 2003). School belongingness is a unique, multifaceted construct that is associated with a student's sense of affiliation to the school (Allen et al. 2018b, c; Arslan et al. 2020). Goodenow and Grady (1993) defined school belongingness to be "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment" (p. 61). Put more simply, school belongingness is about a student's feelings of being connected to the school within a broader school socio-ecological system (Allen et al. 2016; Arslan et al. 2020). Previous research has indicated that there are a number of individual-, social-, and school-level factors that have been reported to impact youth's sense of belonging in school (Allen et al. 2018b, c), such as victimization. Empirical evidence has also shown that victimization experiences were strongly associated with student sense of belonging at school, and victimized adolescents reported less sense of belonging than their peers who were non-victims (Duggins et al. 2016; Holt and Espelage 2003; Loukas and Pasch 2013; Skues et al. 2005; Williams et al. 2018). Taken together, the literature suggests that victimized students are more likely to report lower levels of sense of belonging in school compared to those without victimization experiences, and school belongingness might help to explain the relationship between victimization and youth emotional health and well-being.

## 2 School Belongingness, Psychological Well-Being, and Emotional Problems

Psychological well-being refers to a state of optimal human functioning that is characterized by positive relationships, self-acceptance, environmental mastery, purpose in life, autonomy, and personal growth (Ryff and Keyes 1995). Previous research has indicated that a high sense of school belonging is associated with high levels of well-being indicators, such as positive affect, life satisfaction, and psychological well-being (Anderman 1999; Arslan 2018a, b; Arslan and Duru 2017; Oberle et al. 2011; Tian et al. 2016). O'Rourke and Cooper (2010), for example, reported that markers of happiness and well-being in youths included a sense of belonging, alongside friendship and optimism. In a longitudinal study, Jose et al. (2012) found a sense of belonging at school was positively associated with adolescent well-being, including future orientation, life satisfaction, confidence, and positive affect. In addition to the significance of school belongingness on youth well-being, studies have also emphasized the importance of school belonging on adolescent emotional and behavioral problems, such as depression, anxiety, delinquency, and substance use (Arslan 2018a, b; Arslan et al. 2020; Arslan and Renshaw 2018; Arslan and Tanhan 2019; Bond et al. 2007; Cruwys et al. 2013; McMahon et al. 2008; Napoli et al. 2003; Pittman

and Richmond 2007; Shochet et al. 2011). A meta-analysis by Allen et al. (2018a, b, c) examined the association between school belonging and mental health outcomes, demonstrating that a low sense of belonging at school was associated with high levels of negative affect, mental illness, and anxiety. Specifically, depression, anxiety, and suicidal ideation were found to be closely associated with a low sense of belonging in school (McMahon et al. 2008; Ross et al. 2010; Shochet et al. 2006; Shochet et al. 2011). A high sense of belonging, on the other hand, was correlated with lower levels of these emotional symptoms and stress (Abdollahi et al. 2020; Arslan 2018a; Arslan & Coşkun, 2020; Shochet et al. 2006), and social resources were reported to have a critical role in reducing or mitigating the impacts of stressors in adolescents (Arslan 2018b).

### 3 Theoretical Support

Certain theoretical frameworks (e.g., Belongingness Theory [BT], Self-Determination Theory [SDT]) have also conceptualized the need to belong as a basic psychological need for individuals' psychological growth and well-being; the presence of this need enables enhanced mental health, well-being, and even physical health (Baumeister 2012; Baumeister and Leary 1995; Deci and Ryan 2000). Baumeister and Leary (1995) have theoretically explored the need to belong, concluding that belongingness is a fundamental human motivator, and all individuals innately desire to form and maintain positive relationships with others. Therefore, high levels of school belongingness enhance positive emotions, such as happiness and contentment, whereas low or a lack of belongingness is often associated with negative experiences, including depression, anxiety, and loneliness (Arslan, 2020c; Baumeister and Leary 1995; Osterman 2000). Finally, the empirical and theoretical evidence suggests that school belongingness is a powerful resource in enhancing adolescent emotional adjustment and well-being and may serve as a mitigating factor in the link between school victimization and emotional problems and psychosocial well-being of adolescents (Allen et al. 2018a, b, c).

Moreover, Allen et al. (2016) have explored Bronfenbrenner's social-ecological model as a theoretical framework for school belongingness to better understand the factors (e.g., victimization) that occur across social-ecological levels (e.g., the individual level, the micro-system, and the macrosystem) that impact the sense of school belonging among students (Allen et al. 2018a, b, c). It is conceivable that the complexity of student sense of belonging at school is based on the interactions between the various social-ecological domains. For example, victimization occurs at the micro-system level, however, the impact of victimization, the sense of belonging alongside wellbeing and emotional problems, occurs at the individual level. Each ecological level thus includes risk factors, such as victimization, as well as protective and promotive factors that foster mental health and well-being in the context of these adversities, such as social networks (Masten et al. 2008). While the paper does not claim to test the socio-ecological model (which is impossible due to how large and ephemeral they are my their sheer nature), the authors feel it an important model to

orientate the understanding of school belonging to because it leads more clearly to implications for the findings.

## 4 The Present Study

Within the literature and theoretical framework sketched above, the purpose of the present study was to investigate whether the longitudinal association between victimization at school, emotional problems, and psychological well-being in adolescents was mediated by school belongingness (Wave 1 and 2). Given the protective effect of school belongingness among adolescents (Arslan et al. 2020), it is essential to explore the impacts of school belongingness on youth mental health and well-being in the context of negative life experiences. As much of the research on school belongingness has been based on cross-sectional research designs (Allen et al. 2018a, b, c), with few focusing on the effect of school belonging on youth mental health and well-being over time, the association between these factors remains unclear. Additionally, given the pervasiveness of victimization around the world (Modecki et al. 2014; Nansel et al. 2004), it is critical to identify promotive and protective factors associated with the mental health and well-being of youths in the context of victimization experiences in school settings. The present study attempts to fill this gap by exploring the directionality between victimization, school belongingness, mental health, and well-being among Turkish adolescents aged 10–14 years. This study, therefore, aimed to investigate the longitudinal association between school victimization, school belongingness, emotional problems, and psychological well-being among secondary school adolescents.

## 5 Method

### 5.1 Participants

Using the short-term longitudinal approach, data was collected from 282 students (53.6% female) of a moderately sized public secondary school in an urban city of Turkey. A longitudinal design is an approach that includes repeated measurements of the same variables (e.g., school belonging) over periods of time (i.e., short or long; Caruana et al., 2015). Participants ranged in age from 10 to 14 ( $M = 12.59$ ,  $SD = .99$ ). No ethnic differences were reported amongst students, and they self-identified their socioeconomic statuses (SESs) as follows: lower SES = 22.5%, middle SES = 45.4%, and upper SES = 32.1%. Although all students were invited to participate in the, approximately 55% of students (321) volunteered to participate in the first wave of the study. Thirteen students did not participate in the second wave because of absence from school. Of the initial sample, 308 adolescents participated in both waves, but data from 26 participants were removed because of either missing ID numbers ( $n = 15$ ) or missing or poorly completed surveys ( $n = 11$ ) at the second wave. Wave 1 was conducted in 18–22 February 2019, and Wave 2 data gathered at the end of the school year, 10–15 June 2019. A paper-and-pencil survey was created using the study

instruments and demographic questions. Adolescents who volunteered to participate in the study were given consent forms, which identified the purpose of the study and informed the participants that their responses would only be used anonymously for the purpose of the study.

## 5.2 Measures

**School Belongingness** The School Belongingness Scale (SBS) was used to measure the students' sense of belonging at school (Arslan and Duru 2017). The SBS is a 10-item self-report rating measure developed to assess Turkish children and adolescents' sense of belonging at school (e.g., "I feel like I don't belong to this school," "I can really be myself in this school"). All items are responded to using a four-point Likert-type scale, ranging from 1 (*almost never*) to 4 (*almost always*). Previous research revealed that the SBS provided good data-model fit statistics, as well as strong internal ( $\alpha$ ) and latent construct reliability ( $H$ ) estimates with secondary and high school students (Arslan, 2019a, b; Arslan and Duru 2017). Confirmatory factor analysis also employed with data from the second wave of the present study, yielding good data-model fit statistics ( $\chi^2 = 83.54$ ,  $df = 34$ ,  $p < .001$ , CFI = .94, RMSEA [90% CI] = .069 [.050, .088]), and the scale had adequate-to-strong factor loadings ( $\lambda$  range = .40–.86). The scale also had an adequate internal reliability estimate in this study, as seen in Table 1.

**Emotional Problems** Emotional problems of youths were measured using the Youth Internalizing Behavior Screener (YIBS) developed to assess internalizing symptoms of Turkish children and adolescents in school settings (Arslan, 2020a, b). The YIBS is a 10-item self-report measure scored on a four-point Likert-type scale, ranging from *almost never* (1) to *almost always* (4; e.g., "I have difficulty in relaxing and calming down myself," "I feel depressed and pessimistic"). Past research provided evidence supporting that the measure had good data-model fit statistics and adequate internal ( $\alpha$ ) and latent construct reliability ( $H$ ) estimates with adolescents (Arslan, 2020a, b). Similarly, confirmatory factor analysis with data from the second wave indicated adequate data-model fit statistics ( $\chi^2 = 112.78$ ,  $df = 34$ ,  $p < .001$ , CFI = .92, RMSEA [90% CI] = .087 [.069, .105]), and the scale had

**Table 1** Descriptive statistics and correlations between variables

Scale	Descriptive statistics							Correlation coefficients ( $r$ )				
	$\alpha$	Min.	Max.	$M$	$SD$	$g_1$	$g_2$	1.	2.	3.	4.	5.
1. SV-W1	.73	0	9	1.39	1.58	1.42	2.01	–				
2. SB-W1	.76	15	40	32.92	4.87	–.72	.20	–.38**	–			
3. SB-W2	.78	11	40	31.50	5.88	–.88	.67	–.19**	.46**	–		
4. EP-W2	.72	10	40	17.34	6.06	1.10	.85	.24**	–.35**	–.51**	–	
5. PW-W2	.84	8	56	42.58	10.00	–.84	.45	–.22**	.41**	.44**	–.64**	–

\*\*  $p < .001$ .  $g_1$ , Skewness;  $g_2$ , Kurtosis; SV, School victimization; SB, School belongingness; EP, Emotional problems; PW, Psychological well-being; Min; Max, Minimum and maximum observed scale scores;  $\alpha$ , Internal reliability coefficient

adequate-to-strong factor loadings ( $\lambda$  range = .44–.74). Additionally, the YIBS had an adequate internal reliability estimate with the present sample, as seen in Table 1.

**Psychological Well-Being** Student psychological well-being was assessed using the Flourishing Scale (Diener et al. 2010), which is an eight-item self-report scale developed to measure individuals' psychological well-being (e.g., "My social relationships are supportive and rewarding," "I am optimistic about my future"). Telef (2013) investigated the psychometric properties of the test with Turkish university students and found the scale provided a good data-model fit and strong internal reliability estimates. Confirmatory factor analysis with data from the second wave in this study yielded adequate data-model fit statistics ( $\chi^2 = 95.48$ ,  $df = 20$ ,  $p < .001$ , TLI = .90, CFI = .93, RMSEA [90% CI] = .098 [.079, .118]), and the scale had factor loadings ( $\lambda$  range = .55–.76). The scale also had an adequate internal reliability estimate in this study, as seen in Table 1.

**School Victimization** Victimization experiences at school were measured using the Victimization Scale (VS), which is a subscale of the Bullying Experiences Scale (BES; Arslan, 2019a, b). The measure is a four-item self-report scale developed to assess victimization behaviors in Turkish children and adolescents (e.g., "During the past month, how often have you been threatened with injury?"). All items are scored using a four-point Likert-type scale (0 = *never* to 3 = *4 or more times*). Research indicated that the scale provided adequate internal reliability estimates and data-model fit statistics with Turkish adolescents (Arslan, 2019a, b). Like the previous measures, confirmatory factor analysis with data from the first wave of this study provided adequate data-model fit statistics ( $\chi^2 = 58.56$ ,  $df = 19$ ,  $p < .001$ , CFI = .93, RMSEA [90% CI] = .081 [.059, .107]), and the scale had adequate-to-strong factor loadings ( $\lambda$  range = .35 – .72). The VS also provided an adequate internal reliability estimate in this study, as seen in Table 1.

### 5.3 Data Analyses

Prior to testing the proposed models, observed scale characteristics, analysis assumptions, and correlation analysis were performed. The normality assumption was examined using the skewness and kurtosis values and their cut-off scores (Curran et al. 1996). A correlation analysis was then conducted to investigate the associations between victimization, school belongingness, emotional problems, and psychological well-being. Next, a mediation analysis was conducted to examine the mediating effect of school belongingness on the link of victimization with emotional problems and psychological well-being using structural equation modeling (SEM). Findings from this analysis were assessed using several common data-model fit statistics and their cut-off points: root mean square error of approximation (RMSEA)  $\leq .08$  = adequate and  $\leq .05$  = good data-model fit; comparative fit index (CFI) and Tucker-Lewis index (TLI)  $\geq .90$  = adequate and  $\geq .95$  = close data-model fit (Hooper et al. 2008; Hu and Bentler 1999). Results from these analyses were evaluated using the standardized path estimate ( $\beta$ ) values and squared-multiple correlations ( $R^2$ ): .01–.059 = small, .06–.139 = moderate, and  $\geq .14$  = large (Cohen 1988). All data analyses were conducted using SPSS version 25 and AMOS version 24.



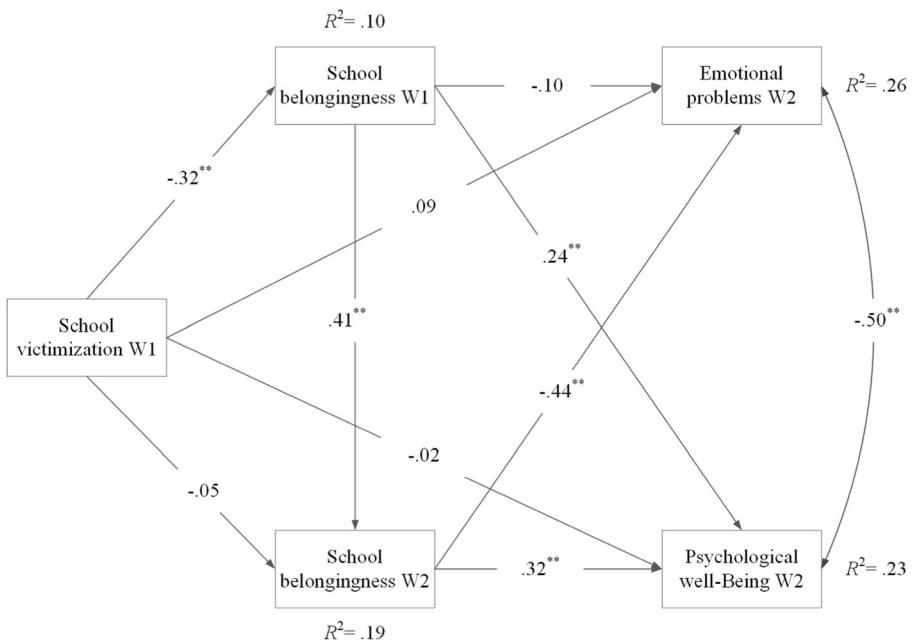
## 6 Results

### 6.1 Observed Scale Characteristics and Intercorrelations

Findings from observed scale characteristics indicated that skewness and kurtosis values ranged from  $-0.88$  to  $2.01$ , suggesting that all variables in the study had relatively normal distributions (Curran et al. 1996). Furthermore, the measures had adequate-to-strong internal reliability estimates ( $\alpha$  range =  $.72$ – $.84$ ). Correlation results showed that victimization at school was negatively and significantly associated with school belongingness (Wave 1  $r = -.38$ ; and Wave 2  $r = -.19$ ) and psychological well-being (Wave 2  $r = -.22$ ), as well as positively correlated with emotional problems (Wave 2  $r = .24$ ) among adolescents. Significant correlations were also found between school belongingness and emotional problems (Wave 1  $r = -.35$ ; Wave 2  $r = -.51$ ) and psychological well-being (Wave 1  $r = .41$ ; Wave 2  $r = .44$ ). Observed scale characteristics and correlation results are presented in Table 1.

### 6.2 Mediation Analyses

Findings from a mediation analysis provided good data-model fit statistics ( $\chi^2 = 8.84$ ,  $df = 4$ ,  $p = .065$ ,  $TLI = .96$ ,  $CFI = .98$ ,  $RMSEA [95\% CI] = .065 [.00, .12]$ ). Results of the SEM also revealed that victimization was a significant predictor of youth school belongingness at Wave 1 ( $\beta = -.32$ ,  $p < .001$ ) but did not significantly predict school belongingness ( $\beta = -.05$ ,  $p = .38$  [before entering the mediator,  $\beta = -.18$ ]), emotional problems ( $\beta = .09$ ,  $p = .08$ ), or psychological well-being at Wave 2 ( $\beta = -.02$ ,  $p = .68$ ).



**Fig. 1** Mediating effect of school belongingness on the association between victimization and psychological well-being and emotional problems. Note. \*\* $p < .001$



**Table 2** Standardized indirect and 95% bootstrap confidence Intervals (BCI)

	Unstandardized		
	Estimate	Lower	Upper
Indirect Effect of SV on SB–W2	-.13	-.20	-.08
Indirect Effect of SV on EP–W2	.11	.05	.17
Indirect Effect of SV on PW–W2	-.13	-.20	-.08
Indirect Effect of SB–W1 on EP–W2	-.18	-.27	-.11
Indirect Effect of SB–W1 on PW–W2	.13	.07	.22

All estimates are statistically significant ( $p < .001$ )

SV, School victimization; SB, School belongingness; EP, Emotional problems; PW, Psychological well-being

School belongingness at Wave 1 significantly and directly predicted youth school belongingness ( $\beta = .41$ ,  $p < .001$ ) and psychological well-being ( $\beta = .24$ ,  $p < .001$ ); however, it did not directly predict emotional problems at Wave 2 ( $\beta = -.10$ ,  $p < .001$ ), as shown in Fig. 1. Standardized indirect with 95% bootstrap confidence intervals are also presented in Table 2.

In addition to the proposed structural model, two additional models were tested to explore the effect of school belongingness on the outcomes in the context of victimization. We first investigated the mediating role of school belongingness at Wave 1 in the association of victimization at Wave 1 with psychological well-being and emotional problems at Wave 2. Findings of these analyses showed that school belongingness mediated the effect of the victimization on psychological well-being ( $\beta = .37$ ,  $p < .001$ ) and emotional problems ( $\beta = -.28$ ,  $p < .001$ ) – with good data-model fit ( $\chi^2 = 4.01$ ,  $df = 2$ ,  $p = .135$ , TLI = .97 CFI = .99, RMSEA [95% CI] = .059 [.00, .14]). A second model was then tested, investigating the mediating role of school belongingness at Wave 2 in the association of victimization at Wave 1 with psychological well-being and emotional problems at Wave 2. Similar to the previous results, the model provided good data-model fit statistics ( $\chi^2 = 2.216$ ,  $df = 1$ ,  $p = .137$ , TLI = .97 CFI = .99, RMSEA [95% CI] = .065 [.00, .18]) and showed that school belongingness at Wave 2 mediated the effect of victimization on youth well-being ( $\beta = .41$ ,  $p < .001$ ) and emotional problems ( $\beta = -.47$ ,  $p < .001$ ). These results suggested that school belongingness in both waves mediated the association between victimization and psychological well-being and emotional problems. Moreover, school belongingness at Wave 1 had a mediation effect on the link of victimization with school belongingness at Wave 2, and school belongingness at Wave 2 mediated the effect of victimization on emotional problems and well-being. Standardized indirect effects are presented in Table 2.

## 7 Discussion

The present study sought to investigate the association between school victimization, school belongingness, emotional problems, and psychological well-being among Turkish adolescents using the short-term longitudinal analyses. The present study

demonstrated that school victimization had a significantly negative predictive effect on youth's sense of school belonging. After including school belongingness at Wave 1 in the model, victimization indirectly and significantly predicted school belongingness at Wave 2. School victimization indicated both a cross-sectional and longitudinal effect on school belonging among adolescents. Consistent with these results, previous evidence has supported that victimization experiences are strongly correlated with student sense of belonging at school, and victimized adolescents report lower levels of sense of belonging than their peers who were non-victims (Duggins et al. 2016; Holt and Espelage 2003; Loukas and Pasch 2013; Skues et al. 2005; Williams et al. 2018). Wormington et al. (2016), for instance, reported that school belonging mediated the association between school-based peer victimization and adolescent adjustment outcomes, such as alcohol use and academic achievement.

Victimization at school is a public health concern, specifically in light of its detrimental impacts on adolescent adjustment and functioning (Huang and Cornell 2015; Nansel et al. 2004). It can be characterized by a negative interaction between a victim and bullying (Olweus 2010) and emits a negative influence on the victim's health and well-being (Alikasifoglu et al. 2007; Nansel et al. 2004; Swearer et al. 2010). Additionally, adolescent victims were more likely to report more difficulties in their social relationships than their non-involved peers (Alikasifoglu et al. 2007). Given the importance of social interactions among adolescents, specifically peer relations (Arslan and Duru 2017; Duru et al. 2019; Osterman 2000), victimized youths are more likely to have a diminished sense of belonging in school (Goldweber et al. 2013; Holt and Espelage 2003). Put another way, being victimized reduces the occurrence of positive social interactions, such as the feeling of accepted, respected, and supported by others in school, which are essential for maintaining a sense of belonging (Allen and Kern 2017; Arslan 2016; Arslan and Duru 2017; Osterman 2000).

Additionally, results from the study revealed that school victimization longitudinally predicted adolescent emotional problems and psychological well-being. School belongingness also mediated the effect of victimization on adolescent emotional problems and well-being. Adolescents who reported higher levels of victimization also reported higher levels of emotional problems and lower levels of school belonging and psychological well-being.

These outcomes revealed that both victimization and a low sense of belonging were shown to be significantly positively correlated with emotional problems and negatively correlated with psychological well-being. Findings from previous studies showed that victimization was associated with a range of physical, emotional, and behavioral problems and psychological well-being for victims (Arseneault et al. 2010; Lenzi et al., 2015; Liu et al. 2020; O'Brennan and Furlong 2010; You et al. 2008). For example, similar results have been cited in recent studies of LGBTQ students (Hatchel et al. 2018), adolescent students from Midwestern America (Davis et al. 2019), and early adolescents in China (Chu et al., 2018). Specifically, victimized adolescents were more likely to have greater emotional challenges, such as depressive symptoms, anxiety, suicidal behavior, and somatization, as well as poorer psychological well-being than those who are non-victimized (Alikasifoglu et al. 2007; Liu et al. 2020; Moore et al. 2012; Salmon et al. 1998; van Geel et al. 2014). Adolescents with depressive disorders and anxiety, for example, reported greater victimization experiences compared with those without these symptoms (Arslan and Allen 2020; Fekkes

2006). Arslan et al. (2012) found that victimized Turkish students reported more maladaptive psychological symptoms compared with those who were not bullied. Similarly, victimization was reported to be significantly associated with both suicidal ideation and suicide attempts among adolescents (van Geel et al. 2014). Longitudinal studies also supported these cross-sectional outcomes, indicating that victimization was not only associated with impairment in current functioning and adjustment of youths but is also a serious risk factor for their adjustment and well-being in adulthood (Arslan et al. 2020; Bender and Lösel 2011; Gibb et al. 2011; Hemphill et al. 2011; Ttofi et al. 2011).

Results of the study also demonstrated the longitudinal effect of school belongingness on emotional problems and psychological well-being, and a sense of belonging mediated the negative impact of victimization at school on mental health and well-being. While the study indicated both victimization and a low sense of belonging were independently shown to be predictors of emotional problems and psychological well-being, there was a marked difference in results from the Wave 1 and Wave 2 surveys. Specifically, school victimization had a significant predictive effect on emotional problems and psychological well-being through school belongingness at Wave 2, and school belongingness at Wave 1 mediated the relation of victimization with school belongingness and psychological well-being at Wave 2. A possible explanation is that a student's current sense of belonging at school contributes to later feelings of belonging, which in turn promotes mental health and well-being in the context of stressors, such as victimization. These results suggest that victimized students who feel a sense of belonging to their school display fewer emotional problems and greater wellbeing than those who are victimized but do not feel a sense of belonging to their school. This is consistent with the literature, which indicates the importance of school belonging on adolescent mental health and functioning (Allen et al. 2018a, b, c; Arslan 2019a, b; Arslan and Duru 2017; Arslan et al. 2020; Duru and Arslan 2014; Burke & Arslan, 2020; Stanley et al., 2020; Tian et al. 2016). Hatchel et al. (2018) found similar results in their study of suicide among students who identify as LBGQT, where suicidal ideation and attempts were lower in students who were victimized but felt a sense of belonging to their school. McMahon et al. (2008) have emphasized that students face school-based social stressors (e.g., peer victimization, peer rejection, and peer harassment), which can be associated with emotional problems such as increased levels of anxiety and depression. Wormington et al. (2016) found that students who did not feel a sense of school belonging were less likely to report acts of bullying. In turn, those schools were less likely to intervene without official reports. One explanation provided by Wormington et al. (2016) suggested that increased feelings of school belonging may increase the likelihood of reporting violent acts. Additionally, interpersonal risk framework has emphasized the importance of social relationships in fostering and sustaining mental health problems (Davis et al. 2019; Hammen 1992) and that conflictual and unsupportive interactions cause emotional problems by decreasing the sense of belonging (Baumeister and Leary 1995). These findings, therefore, have implications for interventions that seek to decrease peer victimization.

## 7.1 Implications

Findings from the present study provide further evidence for the protective benefits of school belonging in adolescence for the prevention of emotional problems and the support of psychological well-being. The findings that a sense of school belonging mitigates the effects of victimization on a student's sense of psychological well-being and emotional problems hold important implications for approaches to prevention and intervention in secondary school settings. The findings, while contextualised to one specific population, offer preliminary yet strong justification for the need for empirically driven programs that increase a sense of school belonging in students, especially given that very few resources of this type are currently available to schools (Allen and Kern 2020; Arslan 2020a, b). All members of a school community have an important role in creating a culture of school belonging among students, and findings from the present study reveal that this is especially important for victims of bullying (Allen et al. 2016). The present study raises the possibility that all schools should be prioritizing school belonging at multiple levels in the school system, for example, through school policies, practices, or public declarations to the school community via the use of school vision and mission statements (Allen et al. 2018a; Allen et al. 2017). Davis et al. (2019) found a significant correlation between decreased rates in victimization and school-based programs that focused on peer cooperation and compassion.

## 7.2 Limitations and Future Research

Despite the strengths of this study, there are some significant limitations. For instance, only students from an urban school were tested. Future studies could look at rural schools and schools of different sizes, as bullying prevalence and sense of school belonging may differ. Additionally, this study only focused on adolescents between the ages of 10–14, as did many of the similar studies cited. Davis et al. (2019) suggest that gender plays a part in the success of intervention and prevention programs and should be further researched. Results should be tested amongst students of other cultures/countries. While the studies cited here indicate similar results in varying settings, it is likely that the form of the intervention and prevention programs may need to change depending on the culture of the students and their school.

## 8 Conclusion

The present study and previous studies indicate that students with a sense of belonging to their school experience fewer negative effects from victimization than students without a sense of belonging. These students also have a stronger sense of psychological well-being and are less likely to have emotional problems. This study also suggests that schools can actively bolster this sense of belonging by promoting programs that focus on peer cooperation, compassion, and social-emotional learning. While further research is still necessary, this study fills an important gap by longitudinally demonstrating the protective impacts of school belonging on victimization.

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## Declarations

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent Informed** Consent was obtained from all participants included in the study.

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