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School Bullying, Mental Health, and Wellbeing in Adolescents: Mediating Impact of Positive Psychological Orientations

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Abstract

School bullying is a serious psychosocial problem due to its detrimental effects on youth school functioning and adjustment. The present study explored the effects of victimization and perpetration experiences on positive psychological orientations, mental health problems, and subjective wellbeing in high school students. Participants of the study included 456 adolescents studying in two public high schools in a city of Turkey. They were 52.5% (239) female and 47.5% (217) male, and their ages ranged between 13 and 19 years ($M = 15.53$, $SD = 1.13$). Findings from the analyses indicated that adolescents in victim and perpetrator groups reported significantly fewer positive psychological orientations, diminished subjective wellbeing, and greater emotional and behavioral problems compared with their non-involved peers. Further outcomes revealed that positive psychological orientations mediated the link between school bullying and mental health problems as well as wellbeing, suggesting the importance of these constructs in developing effective intervention strategies to prevent school bullying and promote youth mental health and wellbeing in school settings.

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School bullying is a serious public health problem because of its detrimental effects on youth adjustment and wellbeing, as well as school functioning (Huang and Cornell 2015). Bullying is defined as a form of aggressive harmful behavior that is exhibited repeatedly over a period of time, and is characterized by a peer power differential (Olweus 2010; Renshaw et al. 2016). Although bullying behavior is a worldwide public health problem among children and adolescents, prevalence rates vary across countries. The Organisation for Economic Co-operation and Development (OECD 2017) documented bullying prevalence in OECD countries as ranging between 9.3% and 30.6%; around 19% of adolescents reported any type of bullying behavior in Turkey. Given the pervasiveness of bullying around the world, it is critical to identify factors related to increasing adolescent mental health and wellbeing in the context of bullying experiences.

Previous studies have indicated that bullying is associated with a variety of physical, psychological, social, and educational outcomes for both the perpetrators and victims (Arseneault et al. 2010; Arslan et al. 2012; Çalık et al. 2009; Kapıkıran 2016; Lenzi et al. 2015; O'Brennan and Furlong 2010; You et al. 2008). These studies show that adolescents who experience bullying report higher levels of psychological symptoms and poorer educational, social, and emotional functioning than those who are non-involved. Although school bullying has received increasing attention from researchers and mental health providers in the past decades, few have focused on factors that protect youth mental health and wellbeing from the impacts of bullying experiences. Understanding these factors could provide significant implications in developing strategies to prevent school bullying and promote youth mental health and wellbeing in school settings. Therefore, the present study aims to better understand the association between bullying behavior, positive psychological orientations, mental health, and wellbeing among Turkish adolescents.

1 School Bullying and Adolescent Outcomes

Previous research has demonstrated the serious impact of bullying on the mental health and wellbeing of children and adolescents (Alikasifoglu et al. 2007; Arslan et al. 2012; Bender and Lösel 2011; Nansel et al. 2004). Victimized adolescents are more likely to report greater emotional and behavioral difficulties (e.g., depressive symptoms, somatization, panic disorder, conduct problems) as well as poorer school functioning (e.g., prosocial behavior, school satisfaction, academic achievement), compared with those who are non-involved. Specifically, depression, anxiety, somatic symptoms (e.g., loneliness, withdrawal), and suicidal behavior are reported as common symptoms experienced by victims of bullying (Alikasifoglu et al. 2007; Moore et al. 2017; Salmon et al. 1998; van Geel et al. 2014). A prospective study by Fekkes (2006), which investigated the association between victimization and psychosomatic and psychosocial symptoms among 1118 school-age children, reported that children with anxiety and depressive disorders were more likely to have had victimization

experiences than those without a history of these symptoms. Arslan et al. (2012) found victimized Turkish adolescents reported more negative physical (e.g., stomachaches, headaches, dizziness) and psychological symptoms (e.g., loneliness, nervousness, irritability) compared with those who were not bullied. Likewise, a significant association was found between victimization and both suicide ideation and suicide attempts among adolescents (van Geel et al. 2014). Alikasifoglu et al. (2007) showed that adolescents involved in bullying experiences reported 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. Adolescents with emotional and behavioral problems reported more victimization experiences than those without these problems, and frequency of victimization predicted greater odds of mental health problems (Eastman et al. 2018).

Although a growing number of studies on bullying focus on victimization and its consequences, few of them have investigated the impacts of perpetration on youth mental health and wellbeing. Specifically, students who are perpetrators– bullying others – report greater behavioral problems and less prosocial behavior compared to youths who are non-involved (Cook et al. 2010; Juvonen et al. 2003; Nansel et al. 2004; Shaw et al. 2013). In comparison, adolescents report greater emotional and behavioral problems, and are less likely to have positive school and social outcomes (Cook et al. 2010; Juvonen et al. 2003; Olweus 2010; Shaw et al. 2013). Longitudinal studies have also supported these cross-sectional results, indicating the significant association between bullying forms and a variety of emotional and behavioral adjustment outcomes (Bender and Lösel 2011; Gibb et al. 2011; Ttofi et al. 2011). Individuals who have a history of perpetration report greater emotional problems (e.g., depression, anxiety, panic disorder) and negative behavioral outcomes (e.g., substance use, antisocial behavior) in adulthood (Boden et al. 2016; Copeland et al. 2013; Klomek et al. 2015; Stapinski et al. 2014). For example, Hemphill et al. (2011) longitudinally reported that perpetration was associated with an increased likelihood of behavioral problems, including violent behavior, theft, and binge drinking, whereas victimization was related to an increased likelihood of depressive symptoms. Specifically, frequency of bullying experiences is strongly associated with social, emotional, and behavioral problems in adulthood (Klomek et al. 2015). Taken together, these outcomes suggest that bullying behavior in adolescence is not only associated with impairment in current psychosocial functioning and adjustment, but is also a serious risk factor for later psychological adjustment and wellbeing.

2 Positive Psychological Orientations, Mental Health, and Wellbeing

The emerging sciences of positive psychology and positive education have emphasized the importance of understanding the contributions of positive psychological orientations in understanding the mechanisms that promote the mental health and wellbeing of children and adolescents (Waters and Loton 2019; Arslan 2019b). Positive psychological orientations are defined here as a construct comprised of core positive psychological strengths (e.g., gratitude, optimism, self-efficacy, empathy, self-awareness) that can be fostered and cultivated (Kim et al. 2019; Renshaw et al. 2014; Roeser and Eccles 2014; Arslan and Çoşkun 2020). Considering certain theoretical frameworks (e.g.,

Acceptance and Commitment Therapy [ACT], Self-Determination Theory [SDT]), the presence of positive psychological orientations allows one to meet basic needs (e.g., relatedness, competency, autonomy) that enable enhanced wellbeing, mental health, and even physical health (Deci and Ryan 2000; Tanhan 2019). Moreover, empirical evidence has supported the effects of positive psychological orientations for promoting mental health and wellbeing. For example, Kim et al. (2019) reported that positive psychological orientations were significantly associated with positive subjective wellbeing and negative emotional distress, and school connectedness mediated the association between these orientations and outcomes. A recent meta-analysis indicated positive psychological orientations improve healthy outcomes, such as positive attitudes and social behaviors, while reducing unwanted outcomes, such as negative conduct behaviors and emotional distress (Durlak et al. 2011). Avey et al. (2011) longitudinally found that individuals with higher positive psychological orientations (e.g., resilience, optimism, hope) were more likely to have greater subjective wellbeing.

3 Present Study

School bullying is a major risk factor for healthy adolescent development and wellbeing, and is associated with poorer psychosocial functioning and increased adjustment problems from childhood to adulthood. The majority of bullying-focused studies have been conducted in more developed or Western countries, leaving little information about bullying in less developed countries, including Turkey. Although the literature has suggested that positive psychological orientations are associated with better adolescent mental health and wellbeing outcomes (Guerra and Bradshaw 2008; Kim et al. 2019; Arslan 2017), the contribution of these orientations in the context of bullying has been relatively unexplored. Understanding the association between these orientations and bullying may provide important clues for fostering positive adjustment and wellbeing for adolescents with a history of bullying. Given the resilience framework (Masten et al. 2008), positive psychological orientations may facilitate positive youth development and eliminate both the frequency and negative impacts of bullying experiences via interventions. The purpose of the present study is to investigate the association between school bullying–victimization and perpetration– and positive psychological orientations, mental health, and wellbeing in high school adolescents. We hypothesized that adolescents in victim and perpetrator groups would report fewer positive psychological orientations, lower subjective well-being, and greater emotional and behavioral problems than those who were non-involved. Additionally, we predicted that positive psychological orientations would mediate the association between bullying and youth mental health and wellbeing indicators.

4 Method

4.1 Participants

Participants of the study included 456 adolescents from two public high schools in an urban city of Turkey. They were 52.5% (239) female and 47.5% (217) male, and their

ages ranged between 13 and 19 years ($M = 15.53$, $SD = 1.13$). All students shared the same ethnic background, yet the socioeconomic status (SES) of adolescents varied as following: Low SES = 34.6%, Medium SES = 41.7%, Upper SES = 23.7%. Students from two public high schools, which were randomly selected from all possible high schools were invited to participate in the study. A paper-pencil survey was first created using instruments of the study (measure section), and the survey was distributed to adolescents who agreed to participate in the study. Prior to the process, informed consent was obtained for all participants. The form identified the purposes of the study and informed the participants that their responses will be kept confidential and will only be used for the purpose of the study. Informed parental consent and student assent were obtained from approximately 70% of the total sampling pool. The present study was approved by the Ministry of National Education ethical review board regarding research with human subjects. All participants completed the survey in approximately 35 min.

4.2 Measures

Positive Psychological Orientations Student positive psychological orientations were measured using the Social and Emotional Health Survey-Secondary (SEHS-S; Furlong et al. 2014). The SEHS-S is a 36-item self-report survey developed to measure core positive psychosocial assets (e.g., "I can work out my problems", "There is a feeling of togetherness in my family", "I don't bother others when they are busy"), and is comprised of four latent constructs, each of which has three subscales: belief-in-self (self-awareness, self-efficacy, and persistence), emotional competence (behavioral self-control, emotional regulation, and empathy), belief-in-others (peer support, school support, and family coherence), and engaged living (zest, gratitude, and optimism; Furlong et al. 2014). All items are scored using a 4-point Likert-type scale (except for gratitude and zest), ranging between 1 = *not at all true of me* and *4 = very much true of me*. A 5- point Likert-type scale was used to score the gratitude and zest subscales (ranging from *1 = not at all* to *5 = extremely*). Previous research has confirmed the latent structure of the SEHS-S with Turkish adolescents, and the outcomes indicated that the scale had an adequate-to-strong internal reliability and convergent validity with various quality-of-life outcomes (Telef and Furlong 2017). For the present study, the internal reliability of the scales ranged between adequate and strong, and all scales had relatively normal distributions (see Table 1).

Bullying Experiences School bullying experiences were assessed using the Bullying Experiences Scale (BES), an 8-item self-report measure developed to measure perpetration and victimization behaviors in adolescents (e.g., "*During the past month, how often have you been threatened with injury?"*). All items are scored using a 4-point Likert-type scale (0 = *never* to 3 = *4 or more times*). The two-factor structure of the BES has been shown to have adequate internal reliability coefficients (perpetration $\alpha = .78$ and victimization $\alpha = .70$; Arslan 2019a). In the present study, the findings demonstrated that the scales had strong internal reliability estimates (see Table 1).

Table 1 Bivariate correlations between variables and descriptive statistics

Scales	SW	BS	BO	EC	EL	BP	EP	VB	PB
Subjective wellbeing	–	.29**	.35**	.10*	.46**	−.23**	−.54**	−.23**	−.20**
Belief-in-self		–	.42**	.41**	.46**	−.26**	−.43**	−.21**	−.17**
Belief-in-others			–	.33**	.33**	−.17**	−.36**	−.26**	−.21**
Emotional competence				–	.23**	−.29**	−.16**	−.24**	−.35**
Engaged living					–	−.07	−.44**	−.11**	−.10*
Behavioral problems						–	.52**	.32**	.40**
Emotional problems							–	.34**	.25**
Victimization behavior								–	.52**
Perpetration behavior									–
M	4.96	25.52	26.98	28.12	27.30	18.91	20.45	7.03	6.88
SD	2.91	4.77	5.79	4.86	7.35	4.567	6.05	2.99	3.04
Skewness	−.02	−.13	−.50	−.53	−.13	1.07	.85	1.03	1.03
Kurtosis	−.91	−.25	−.08	.30	−.58	2.58	.73	.49	.37
Internal estimates (α)	–	.79	.81	.76	.80	.74	.86	.80	.82

* $p < .05$, ** $p < .001$

Mental Health Problems Emotional and behavioral problems were assessed using the Youth Internalizing (YIBS) and Externalizing Behavior Screener (YEBS). The YIBS is a 10-item self-report screener developed to measure emotional problems of Turkish adolescents (e.g., "I have difficulty in relaxing and calming down myself", "I feel depressed and pessimistic"). The scale is comprised of two subscales, measuring core symptoms of anxiety and depression. All items are measured using a 4-point Likert-type scale, ranging between *almost never (1)* to *almost always (4)*. Previous research has provided evidence that the YIBS has strong internal and latent structure reliability and concurrent validity with criterion variables (Arslan 2020). The YEBS is a 12-item self-report measure developed to assess problems of Turkish children and adolescents (e.g., "I often make others angry or annoyed", "I get distracted easily, I have difficulty in concentrating"). The scale is comprised of three subscales, measuring core symptoms of attention problems, hyperactivity, and conduct problems. All items of the scale are rated on a 4-point Likert-type scale, ranging between *almost never (1)* and *almost always (4)*. Research has indicated that the YEBS has adequate-to-strong internal and latent structure reliability and concurrent validity with criterion variables (Arslan 2019c). Findings from the present study showed that the scales had adequate internal reliability coefficients and relatively normal distribution (see Table 1).

Subjective Wellbeing The Subjective Wellbeing Scale (SWS) was used to measure youth subjective wellbeing. The SWS is a single item self-report measure adapted from the Health Behavior in School-Aged Children (HBSC; Iannotti 2013) to asses youth subjective wellbeing ("Here is a picture of a ladder. The top of the ladder '10' is the best possible life for you and the bottom '0' is the worst possible life for you. In

general, where on the ladder do you feel you stand at the moment?"). The item was arranged along an 11-point response scale, ranging between *0* and *10*, with higher scores indicating higher subjective wellbeing. For the present sample, observed scale characteristics indicated the scale had relatively normal distribution (see Table 1).

4.3 Data Analyses

After excluding missing data and outliers from the dataset, preliminary analyses were conducted to examine the observed scale characteristics, assumption of normality, and correlations between variables. The normality assumption was investigated using skewness and kurtosis scores (Curran et al. 1996; Kline 2015), and Pearson product-moment correlation analyses were performed to examine the associations between variables of the study. Next, participants were classified into two groups based on their answers to the victimization and perpetration items (see, Felix et al. 2011; Renshaw et al. 2016; Solberg and Olweus 2003). The non-involved group consisted of participants who reported one or fewer experience of victimization/perpetration in the past month. The victim/perpetrator group was comprised of adolescents who reported two or more experiences of victimization/perpetration in the past month. A series of univariate analyses of variance (ANOVAs) were conducted to examine the differential effects of victimization and perpetration on youth psychosocial functioning, wellbeing, and mental health problems. Findings of this analysis were interpreted using the Cohen's d effect sizes as small ($d = .2$), medium ($d = .5$), and large ($d = .8$; Cohen 1988). After conducting the univariate analysis of variance, a mediation analysis was conducted to test the role of positive psychological orientations in the association of bullying experiences (i.e., victimization and perpetration) with youth emotional and behavioral problems and subjective well-being using the PROCESS macro for SPSS version 3.4 (Hayes 2018). The mediation analysis results were interpreted using the standardized path coefficients (β) scores and squared-multiple correlations (R^2), following traditional effect sizes: .00–.009 = negligible, .01–.059 = small, .06–.139 = moderate, and ≥ .14 = large (Cohen 1988). All data analyses were performed using SPSS version 24.

5 Results

5.1 Preliminary Analyses

Preliminary analyses outcomes showed that skewness and kurtosis scores ranged from −.82 to 2.34, suggesting that all variables had relatively normal distributions (Curran et al. 1996). Furthermore, the internal reliability (α) of the scales within the present sample were adequate-to-strong, ranging between .76 and .86, as shown in Table 1. After examining observed scale characteristics, a Pearson product-moment correlation analysis was conducted to investigate the associations between variables of the study. Correlation results showed that victimization (r range = −.29 to .42) and perpetration behavior (r range = −.38 to .43) were significantly and moderately associated with

positive psychological orientations, subjective wellbeing, and mental health problems, as shown in Table 1.

Before conducting the variance analyses, the prevalence of victimization and perpetration were investigated. Descriptive statistics showed that of the 486 participants, 355 (73.0%) reported no victimization behavior (non-involved group or non-victims) and 131 (27.0%) reported two or more victimization experiences (victim group). Regarding perpetration, 356 (73.3%) of adolescents reported no perpetration experience (non-involved group) and 130 (26.7%) reported two or more perpetration behaviors (perpetrator group). With regard to gender differences, chi-squared analyses showed that boys had significantly higher levels of victimization ($\chi^2 = 24.04$, $df = 1$, $p < .001$; Cramer's $V = .23$) and perpetration ($\chi^2 = 14.27$, $df = 1$, $p < .001$; Cramer's $V = .17$) than girls. This difference was driven by a higher number of boys than girls that were classified as victims (boys = 37.1%; girls = 17.2%) and perpetrators (boys = 34.6%; girls = 19.2%), as shown in Fig. 1.

5.2 Univariate Analysis of Variance

A series of univariate ANOVAs were conducted to compare the effect of victimization and perpetration groups on youth positive psychological orientations, mental health problems, and subjective wellbeing. Findings from these analyses yielded a significant main effect of victimization on psychosocial functioning, with the exception of engaged living ($F = 2.53$, $p = .112$), and significant effects on wellbeing: belief-in-self ($F = 17.62$, $p < .001$), belief-in-others ($F = 24.35$, $p < .001$), emotional competence ($F = 15.40$, $p < .001$), and subjective wellbeing ($F = 19.94$, $p < .001$). Cohen's d effect sizes ranged from .16 for engaged living to .50 for belief-in-others. Additionally, the outcomes indicated a significant main effect of victimization on emotional problems ($F = 32.40$, $p < .001$) and behavioral problems ($F = 43.16$, $p < .001$). The Cohen's d effect size was .58 for emotional problems and .67 for behavioral problems.

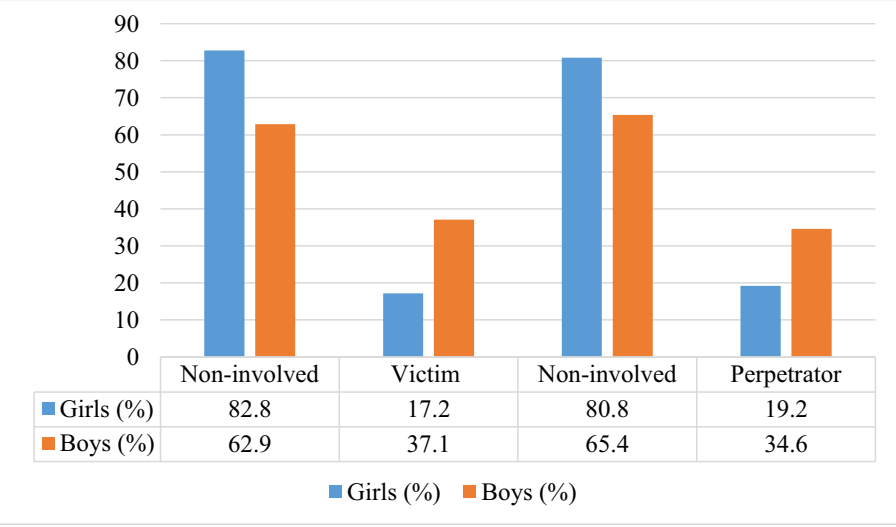

Fig. 1 Frequency of victimization and perpetration by gender

With regard to adolescent perpetration behavior, univariate ANOVA outcomes provided a significant main effect of perpetration on subjective wellbeing ($F = 13.70$, $p < .001$), belief-in-self ($F = 12.57$, $p < .001$), belief-in-others ($F = 15.19$, $p < .001$), and emotional competence ($F = 47.27$, $p < .001$) and yielded a non-significant main effect of perpetration for engaged living ($F = 2.27$, $p = .132$). Cohen's d effect sizes ranged from .15 for engaged living to .71 for emotional competence. Findings also yielded a significant main effect of perpetration on emotional ($F = 22.83$, $p < .001$, Cohen's $d = .49$) and behavioral problems ($F = 62.72$, $p < .001$, Cohen's $d = .81$), as shown in Table 2.

Table 2 Univariate analysis of variance results for the victimization behavior

							95% CI	
Variable		*M*	*SD*	*F*	*p*	Cohen's *d*	Lower	Upper
Subjective wellbeing	Non-involved	5.32	2.94	19.94	<.001	.46	.25	.66
	Victim	4.01	2.60					
Belief-in-self	Non-involved	26.07	4.62	17.62	<.001	.43	.23	.63
	Victim	24.05	4.88					
Belief-in-others	Non-involved	27.75	5.45	24.35	<.001	.50	.30	.71
	Victim	24.90	6.17					
Emotional competence	Non-involved	28.64	4.62	15.40	<.001	.40	.20	.60
	Victim	26.71	5.23					
Engaged living	Non-involved	27.62	7.50	2.53	.112	.16	.04	.36
	Victim	26.42	6.88					
Emotional problems	Non-involved	19.53	5.82	32.40	<.001	.58	−.79	−.38
	Victim	22.95	6.00					
Behavioral problems	Non-involved	18.13	4.17	43.16	<.001	.67	−.88	−.47
	Victim	21.10	4.89					
Subjective wellbeing	Non-involved	5.26	2.88	13.70	<.001	.38	.18	.58
	Perpetrator	4.16	2.86					
Belief-in-self	Non-involved	25.98	4.65	12.57	<.001	.36	.16	.57
	Perpetrator	24.30	4.88					
Belief-in-others	Non-involved	27.60	5.39	15.19	<.001	.40	.20	.60
	Perpetrator	25.31	6.49					
Emotional competence	Non-involved	29.00	4.35	47.27	<.001	.71	.50	.91
	Perpetrator	25.72	5.37					
Engaged living	Non-involved	27.60	7.22	2.27	.132	.15	.05	.36
	Perpetrator	26.46	7.69					
Emotional problems	Non-involved	19.68	5.73	22.83	<.001	.49	−.69	−.29
	Perpetrator	22.58	6.39					
Behavioral problems	Non-involved	17.99	3.92	62.72	<.001	.81	−1.02	−.61
	Perpetrator	2148	5.19					

Table 3 Unstandardized coefficients for the mediation models

		Consequent																	
		M_1 (Positive orientation)				M_2 (Subjective wellbeing)					Y_1 (Emotional)					Y_2 (Behavioral)			
Antecedent		Coeff.	*SE*	*t*	*p*		Coeff.	*SE*	*t*	*p*		Coeff.	*SE*	*t*	*p*	Coeff.	*SE*	*t*	*p*
X (Victim)	a_1	−1.51	.24	−6.27	<.001	a_2	−.11	.04	−2.69	.007	*c*’	.35	.07	4.70	<.001	.40	.07	5.88	<.001
M_1 (Pos)		–	–	–	–	d_{21}	.07	.01	9.72	<.001	b_1	−.10	.01	−6.95	<.001	−.04	.01	−2.64	.008
M_2 (SW)		–	–	–	–	–	–	–	–	–	b_2	−.79	.08	−9.63	<.001	−.18	.07	−2.50	.012
Constant	i_{M1}	118.55	1.84	64.37	<.001	i_{M2}	−2.07	.93	−2.22	.027	i_y	32.93	1.69	19.45	<.001	20.83	1.53	13.63	<.001
		$R^2 = .08$ $F = 39.24$; $p < .001$					$R^2 = .21$ $F = 62.75$; $p < .001$					$R^2 = .41$ $F = 107.93$; $p < .001$				$R^2 = .14$ $F = 26.71$; $p < .001$			
X (Perpet)	a_1	−1.49	.24	−6.27	<.001	a_2	−.09	.04	−2.09	.034	*c*’	.19	.07	2.49	.013	.53	.06	8.19	<.001
M_1 (Pos)		–	–	–		d_{21}	.07	.01	9.85	<.001	b_1	−.11	.02	−7.22	<.001	−.03	.01	−2.20	.028
M_2 (SW)		–	–	–		–	–	–	–	–	b_2	−.82	.08	−9.83	<.001	−.18	.07	−2.55	.011
Constant	i_{M1}	118.15	1.78	66.28	<.001	i_{M2}	−2.39	.93	−2.58	.010	i_y	34.90	1.71	20.38	<.001	19.28	1.48	13.06	<.001
		$R^2 = .08$ $F = 39.27$; $p < .001$					$R^2 = .20$ $F = 60.96$; $p < .001$					$R^2 = .38$ $F = 99.49$; $p < .001$				$R^2 = .19$ $F = 38.49$; $p < .001$			

SE = standard error. Coeff = unstandardized coefficient. *X* = independent variable; *M* = mediator variables; *Y* = outcomes or dependent variables

5.3 Mediation Analyses

A mediation analysis was performed to examine the mediating role of positive psychological orientations on the association between victimization and mental health and wellbeing indicators (see Table 3). Findings of this analysis showed that victimization significantly predicted youth positive psychological orientations ($\beta = -.27$, $p < .001$) and subjective wellbeing ($\beta = -.11$, $p < .05$), and positive psychological orientations mediated the association of victimization with subjective wellbeing ($\beta = .41$, $p < .001$). Victimization was also a significant predictor of emotional ($\beta = .17$, $p < .05$) and behavioral problems ($\beta = .26$, $p < .001$). Further, positive psychological orientations meditated the effect of victimization on adolescent emotional problems ($\beta = -.28$, $p < .001$) and behavioral problems ($\beta = -.13$, $p < .05$). Victimization accounted for 8% of the variance in positive psychological orientations, and it and psychological orientations, together, accounted for 21% of the variance in subjective wellbeing. All variables together accounted for 40% of the variance in emotional problems and 14% of the variance in behavioral problems (see Fig. 2).

The mediating role of positive psychological orientations in the association between perpetration and mental health problems and subjective wellbeing was tested. The results indicated that perpetration significantly predicted youth positive psychological orientations ($\beta = -.27$, $p < .001$) and subjective wellbeing ($\beta = -.09$, $p < .05$). Perpetration was also a significant predictor of emotional problems ($\beta = .09$, $p < .05$) and behavioral problems ($\beta = .26$, $p < .001$). Positive psychological orientations mitigated the effects of perpetration on subjective wellbeing ($\beta = .42$, $p < .001$), as well as emotional problems ($\beta = -.29$, $p < .001$) and behavioral problems ($\beta = -.12$, $p < .05$). Perpetration accounted for 8% of the variance in positive psychological orientations, and it and psychological orientations, together, accounted for 20% of the variance in

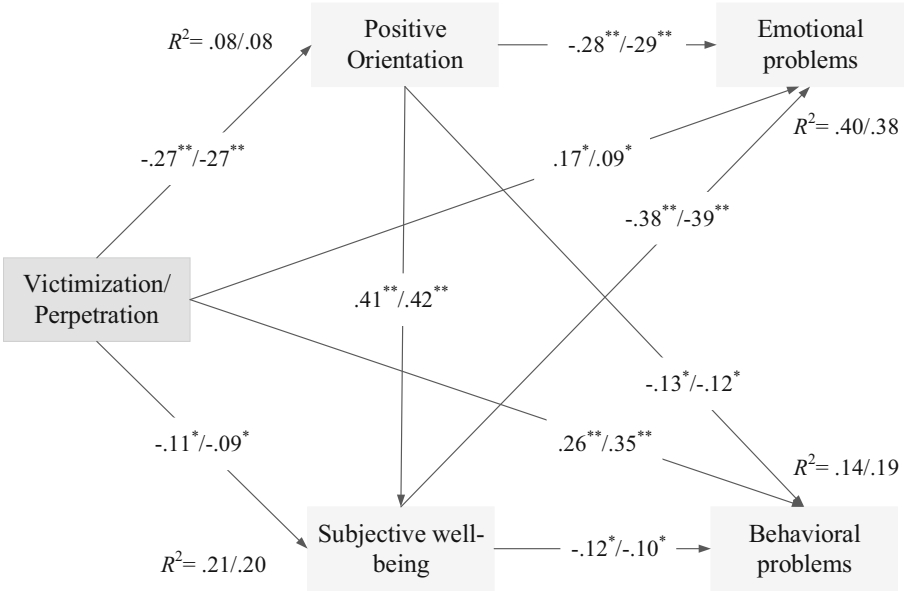

Fig. 2 Mediation model demonstrating the associations between variables. *Note*. $^{*}p < 05$, $^{**}p < 001$

subjective wellbeing. All variables together accounted for 38% of the variance in emotional problems and 19% of the variance in behavioral problems (see Fig. 2).

6 Discussion

The present study examined the association between school bullying and psychosocial functioning, mental health problems, and wellbeing in adolescents. Among adolescents in the study, 27% reported two or more victimization experiences and 26.7% reported two or more perpetration behaviors. Consistent with findings of this study, Alikasifoglu et al. (2007) reported that 22% of Turkish adolescents were the victims of bullying and 9% were perpetrators. A study by Erginoz et al. (2015) indicated that 21% of Turkish students were victims and 11% were perpetrators. Additionally, a meta-analysis study reported that the prevalence of bullying is estimated at nearly 35% of adolescents, and these prevalence rates were remarkably similar for victimization and perpetration (Modecki et al. 2014). Nansel et al. (2004) showed that school bullying among adolescents ranged from 9% (Sweden) to 54% (Lithuania) across countries, and that 11% of the students were classified as being victims, while 10% of them were perpetrators. Cultural factors, methodological issues, educational systems, and school environments might account for these differences among countries (Alikasifoglu et al. 2007). Moreover, although bullying problems in these studies were relatively characterized by more victimization experiences and fewer perpetration behaviors, the findings of the present study indicate both were relatively equal among Turkish adolescents. With regard to gender differences, the study results showed that boys had significantly higher levels of victimization and perpetration experiences compared to girl adolescents. The increased rate of bullying experienced by boys is consistent with previous outcomes (Alikasifoglu et al. 2007; Arslan et al. 2012; Siyahhan et al. 2012; Solberg and Olweus 2003; Wang et al. 2009). Boys may use more aggressive interactions in their social relationships, because these behaviors are more socially accepted and approved by their peer groups than girls' (Kokkinos and Kipritsi 2012).

Although the relationship between bullying experiences and emotional and behavioral problems is well-established, less is known about how bullying is associated with constructs (e.g., positive psychological orientations) that promote youth wellbeing. The first hypothesis, that adolescents in victim and perpetrator groups would report fewer positive psychological orientations and subjective wellbeing, as well as greater emotional and behavioral problems than those in the non-involved group, was supported by indicating that students in non-involved groups reported greater positive psychological orientations and subjective wellbeing than those in victim and perpetrator groups. Victims and perpetrators reported lower levels of belief-in-self, belief-in-others, emotional competence, and subjective wellbeing than non-victims. Specifically, there were large and highly significant differences between the non-involved and victim group on belief-in-others, as well as the non-involved and perpetrator group on emotional competence. Belief-in-others is comprised of social support resources, characterized by peer, family, and school support (Furlong et al. 2014) and has been shown as a significant resource in coping with negative life experiences (Arslan 2018; Duru and Balkis 2018; Moore and Diener 2019), such as school bullying (Frydenberg et al. 2012). Consistent with the results of this study, past research reveals that victimized

adolescents report fewer social support resources, and they do not generally feel supported by peers, family, or others (Davidson and Demaray 2007; Duru and Balkis 2018; Fullchange and Furlong 2016; Haskan-Avci and Yildirim 2014; Slee and Rigby 1999). In addition to these empirical outcomes, social support resources have theoretically (e.g., main-effect or stress-buffering model) been characterized as a protective factor on adolescent mental health and wellbeing (Hansen et al. 2012; Malecki and Demaray 2004; Arslan 2018). For example, Fullchange and Furlong (2016) revealed that non-victimized students reported greater positive psychological orientations including belief-in-self, belief-in-others, and engaged living than those who had some or frequent victimization experiences. Although prior studies have investigated some of these psychological orientations (e.g., self-efficacy, emotional intelligence) among victims and perpetrators, few have thoroughly focused on the effect of school bullying behavior on the constructs, specifically among Turkish adolescents; these findings provide further evidence toward the growing empirical literature base.

Consistent with previous research on school bullying (Garner and Hinton 2010; Kokkinos and Kipritsi 2012; Shields and Cicchetti 2001; Zych et al. 2018), the results of this study also showed that adolescents who were perpetrators reported lower levels of belief-in-self, belief-in-others, emotional competence, and subjective wellbeing compared to those who were non-involved. A large significant difference was found between non-involved adolescents and the perpetrator group on emotional competence. The construct of emotional competence associated with bullying has been minimally investigated. For example, Kokkinos and Kipritsi (2012) found that emotional intelligence and cognitive empathy were significant predictors of perpetration, while victimization was significantly predicted by affective empathy and emotional intelligence among elementary school students. Similarly, a unique contribution of emotional dysregulation toward differentiating perpetrators and victims from youths who were non-involved was found (Shields and Cicchetti 2001). Emotional competence refers to the emotional and cognitive skills to manage and express one's emotions, and is comprised of three core structures: behavioral self-control, emotional regulation, and empathy (Furlong et al. 2014; Renshaw et al. 2014). Students who are sensitive to the emotions of others and who have the ability to monitor, express, and regulate their own emotions are more equipped with the skills required to predict the negative consequences of their actions and develop strong interpersonal relationships (Kokkinos and Kipritsi 2012; Menesini et al. 2008; Kim et al. 2018). In comparison, adolescents who lack these skills are more likely to be easily hurt and insult others in their relationships (e.g., with peers) without experiencing guilt and negative feelings (Menesini et al. 2008). As Petrides, Petrides et al. (2004) reported, adolescents who have poor social-emotional abilities are more likely to experience antisocial and externalizing problems, such as perpetration behavior.

Results of this study also demonstrated that non-involved adolescents reported lower levels of emotional and behavioral difficulties, compared with victims and perpetrators. The findings point to larger differences between the non-involved and victim/perpetrator groups for behavioral problems than emotional problems. Victimized adolescents also reported greater emotional problems than those who were perpetrators. Consistent with these outcomes, both cross-sectional and longitudinal research indicates that adolescents reporting victimization and perpetration experiences had greater emotional difficulties, such as depression, anxiety, and behavioral problems,

(Alikasifoglu et al. 2007; Attar-Schwartz et al. 2019; Bender and Lösel 2011; Juvonen et al. 2003; Smith et al. 2004; Solberg and Olweus 2003). A second hypothesis, that positive psychological orientation would be a mediator on the association of bullying with youth mental health and wellbeing indicators, was also supported, and findings of the study revealed that positive psychological orientations meditated the link of bullying experiences (i.e., victimization and perpetration) with subjective wellbeing and emotional and behavioral problems. These findings support previous research studies (e.g., Guerra and Bradshaw 2008; Kim et al. 2019; You et al. 2008) that have found positive psychological orientations in youth have a significant mediating effect on life satisfaction and emotional distress. It is plausible that psychological orientations such as belief-in-self (self-awareness, self-efficacy, and persistence), emotional competence (behavioral self-control, emotional regulation, and empathy), belief-in-others (peer support, school support, and family coherence), and engaged living (zest, gratitude, and optimism) have a fundamentally important role in youth wellbeing and the prevention and management of emotional and behavioral problems.

It also possible to conclude from the findings that positive psychological orientations offer a way to mediate perceptions of bullying (both as a victim and perpetrator) and increase wellbeing and decrease emotional behavioral problems as a result. Therefore, the cultivating and building of positive psychological orientations at school should be a priority and certainly a central consideration of bullying interventions and prevention programs. This finding also builds on the existing available evidence that encourages schools to offer opportunities for young people to develop and build positive psychological orientations, such as those offered through social and emotional learning approaches (Allen et al. 2018; Frydenberg et al. 2017). Waters and Loton (2019) emphasizes that schools are a core prevention mechanism in the promotion of student wellbeing and mental health and that schools should be teaching both academic skills and wellbeing skills. The findings of this study add further weight to this argument and demonstrate the need for positive psychological orientations to be a key consideration by school leaders and teachers implementing wellbeing and mental health promotion programs in their school setting.

6.1 Limitations

The present study has some limitations to keep in mind when one considers the reported results and implications for research and practice. First, all data were collected through self-report which may bring social desirability biases. Future research can include more comprehensive methodologies like photovoice and informants. The second limitation is a lack of diversity among the sample. Future studies should include larger samples both from different cities in Turkey as well as internationally in order to examine the findings among diverse populations, subgroups, and cultures. Finally, the collected data was cross-sectional in nature and prevents examination of a cause and effect relationship; researchers should conduct longitudinal, experimental, or quasi-experimental studies. Future studies should also investigate additional mediating and moderating factors in the context of bullying behavior such as *school belonging* which has been found to have important long- and short-term outcomes on youth mental health and wellbeing (Allen et al. 2018; Allen and Kern 2017; Arslan et al. 2020). Exploring such possible factors may contribute to developing more comprehensive and

grounded preventions and interventions in order to promote adolescent mental health and wellbeing despite victimization and perpetration experiences.

6.2 Implications

Keeping these limitations in mind, the present research has some important implications for researchers, School-based mental health practitioners, and individuals involved in school systems. The findings from the present study adds additional information to the existing literature that has examined the relationship between positive psychological orientations and bullying. Future research should utilize the social-emotional health model and resilience framework in order to further this research and develop more evidence based and theory-based interventions. More specifically, as the present findings indicate the helpful role of positive psychological orientations, researchers could focus on counseling approaches that emphasize the use of strength-based interventions. For example, Acceptance Commitment Therapy (ACT) focuses on constructing positive processes (e.g., flexible attention to the present moment, values, self-as-context) to cultivate psychological flexibility in order to enhance biopsychosocial wellbeing and also address related psychopathology (Tanhan 2019). Additionally, the use of broader frameworks focusing on contextual factors which explain the nature of variables in the present study (e.g., victimization, perpetration) are needed to provide contextually and culturally effective services (Arslan and Tanhan 2019; Tanhan and Francisco 2019). The Ecological Systems Theory (EST) could be utilized as a framework to understand how positive psychological orientations and other variables (e.g., victimization, perpetration) are impacted by one another. The intersectional and trans-sectional examination of the variables could also be addressed at different levels of EST (e.g., micro, meso, exo, and macro levels; Allen et al. 2016; Arslan & Tanhan 2019).

Mental health practitioners could utilize empirically tested positive psychological orientations-based interventions to address the negative impacts of victimization and perpetration. Rather than aiming to directly manage the negative impacts of bullying, they can work to cultivate positive psychological orientations as they explain and promote short- and long-term mental health and wellbeing. More specifically, the practitioners may utilize ACT within the context of an EST approach to construct positive psychological orientations. Importantly, mental health educators and trainers are gate keepers for mental health research and practice as they often train future mental health providers and researchers. Therefore, mental health educators can give more attention to these issues and models in their courses and during counseling supervision training sessions.

Results of the study also showed that positive psychological orientation mediated the effect of victimization and perpetration on subjective wellbeing, emotional difficulties, and behavioral problems. These findings suggest that mental health providers should help adolescents cultivate positive psychological orientations like belief-in-self and emotional competence to address victimization and perpetration issues and their related emotional and behavioral problems. They should strive to increase their understanding of the applications of positive psychological orientations (e.g., knowledge, experience, skills, awareness, intervention) in order to maximize their impact on adolescents affected by bullying.

Compliance with Ethical Standards

Disclosure of Potential Conflicts of Interest The authors declared no conflicts of interest with respect to the research, authorship, and/or publication of this article.

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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