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ORIGINAL ARTICLE

Positive psychological traits, school functioning, and psychological adjustment in elementary schoolchildren

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Abstract

The present study explored the associations among positive psychological traits, school functioning, and psychological adjustment of elementary schoolchildren. Participants included 392 children in Grades 6–8 attending a Turkish public elementary school. There were 48.2% (189) female and 51.8% (203) male participants, and they ranged in age from 11 to 14 years ($M = 12.83$, $SD = .94$). Findings of the study indicated that youths with high positive psychological traits reported higher levels of prosocial behaviour, school belonging and academic achievement, and lower levels of externalising and internalising problems. Path analysis outcomes revealed that the positive psychology constructs had significant and large associations with prosocial behaviour, school belonging, internalising and externalising problems, as well as small-to-large associations with student academic achievement. Overall, the combination of these positive traits, namely covitality, had stronger associations with youths' school functioning and psychological adjustment than the constructs that comprise covitality. The outcomes suggest substantial associations between positive psychological traits and youths' school-based and psychological characteristics.

Keywords: complete mental health; positive psychological traits; school functioning; psychological adjustment; resilience

Mental health is traditionally identified as the absence of psychological disorders (Westerhof & Keyes, 2010), and psychopathology and wellbeing are considered as two opposite poles of a single mental health continuum (Greenspoon & Saklofske, 2001; Renshaw & Cohen, 2014). In contrast to this unidimensional perspective, complete mental health is conceptualised as consisting of the absence of psychological symptoms with the presence of positive indicators of the mental health, including subjective wellbeing and/or positive psychological traits (Moore et al., 2015; Renshaw & Arslan, 2018; Suido & Shaffer, 2008). Previous studies have provided evidence indicating that complete mental health has additive value in predicting individuals' school outcomes, physical health, and social functioning (Arslan, 2018a; Renshaw & Arslan, 2018; Renshaw & Cohen, 2014; Suido & Shaffer, 2008; Suldo, Thalji, & Ferron, 2011). Integrating both positive and negative mental health indicators has important implications for the early identification of emotional challenges and to support prevention and intervention strategies that promote positive youth development (DiStefano & Kamphaus, 2006). The purpose of the present study is to investigate the relationships among positive psychological traits, school functioning, and psychological adjustment of elementary schoolchildren.

Positive psychological traits, school functioning, and psychological adjustment

Positive psychological traits are identified as the positive dimension of complete mental health and have received increasing attention from both researchers and practitioners (Renshaw et al., 2014).

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Previously, there was no single term to describe the co-occurrence of an individual's positive psychological traits (Jones, You, & Furlong, 2013). During the past decade, a new construct has been used to describe the co-occurrence of youths' positive traits (e.g., gratitude, optimism, persistence, and zest; Furlong, You, Renshaw, O'Malley, & Rebelez, 2013). The interactive and combined effect of these positive psychological constructs has been identified as covitality (Furlong et al., 2013; Weiss, King, & Enns, 2002). Weiss and Luciano (2015) have emphasised the crucial role of covitality in understanding the nature of positive psychological strengths. According to social-emotional health model, covitality is the 'synergistic effect of positive mental health resulting from the interplay among multiple positive-psychological building blocks' (Furlong, You, Renshaw, Smith, & O'Malley, 2014, p. 1013). Covitality is a higher order latent construct that describes the interplay of multiple co-occurring positive psychological indicators of mental health (Renshaw et al., 2014).

Covitality construct is grounded in the resilience and positive youth development literature (Furlong et al., 2014; Lenzi, Dougherty, Furlong, Dowdy, & Sharkey, 2015). Research has historically focused on youth mental health within an independent asset approach and investigated the effects of the individual factor on youth quality-of-life outcomes. Fewer studies have employed the cumulative-factor framework, wherein a meta-construct (e.g., covitality) was formed using positive mental health indicators (Furlong, Dowdy, Carnazzo, Bovery, & Kim, 2014; Lenzi et al., 2015). The cumulative-factor approach has proposed that cumulative assets have better predictive effects on youth quality-of-life outcomes than isolated protective factors (Lenzi et al., 2015; Ostazewski & Zimmerman, 2006). Given this framework, the combination of positive psychological traits is more beneficial for youth educational, social, emotional and behavioural functioning compared with individual positive traits (Lenzi et al., 2015).

Covitality has been documented to be closely associated with a variety of valued outcomes, including problem behaviours, internalising symptoms, internet-related problems, and school problems in elementary schoolchildren to university students (Arslan & Renshaw, 2018; Boman, Mergler, & Pennell, 2017; Jones et al., 2013; Kaplan, 2017; Lee, You, & Furlong, 2016; Marino, Hirst, Murray, Vieno, & Spada, 2017; Renshaw & Arslan, 2016). In addition, the construct has been positively associated with subjective wellbeing, academic achievement, personal adjustment, and prosocial behaviours (Arslan, 2018a; Jones et al., 2013; Lee et al., 2016; Ito, Smith, You, Shimoda, & Furlong, 2015). Youths with high covitality are more likely to have better educational and developmental outcomes compared with those who have low covitality (Furlong et al., 2014; Keyfitz, Lumley, Hennig, & Dozois, 2013; Renshaw, 2017). For example, Wilkins, Boman, and Mergler (2015) reported the positive and strong predictive effect of covitality on school engagement and prosocial behaviour among children. Pennell, Boman, and Mergler (2015) indicated that covitality was a stronger predictor of students' psychological wellbeing and depression than each positive strength. Covitality was highly predictive of youths' school functioning, including caring relationships, prosocial behaviour, school rejection, and school acceptance (Furlong et al., 2013). Taken together, these outcomes suggest that the combination of youths' positive psychological constructs has greater predictive power, rather than any trait in isolation.

Current study

Within the context sketched above, the present study investigated the association between positive psychological traits, school functioning, and psychological adjustment of elementary schoolchildren. Although many studies have explored the association between positive psychological traits and quality-of-life outcomes, the potential influences of covitality on youth school functioning and psychological adjustment have remained relatively unexplored, specifically in Turkey. Therefore, outcomes of the study have importance for understanding the effect of positive traits on school functioning and psychological adjustment of elementary schoolchildren. Findings of the

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study will provide a number of significant theoretical and applied implications for school-based mental health providers and other professions.

Method

Participants

Participants of the present study included 392 children in Grades 6–8 attending a public elementary school in an urban city in Turkey. Students were 48.2% (189) female and 51.8% (203) male and ranged in age from 11 to 14 years ($M = 12.83$, $SD = .94$). They reported their socioeconomic status (SES) as follows: low SES = 20.5%, average SES = 33.4%, and high SES = 37.1%. Although all students were invited to participate in the study, informed parental consent and student assent were obtained from only 65% of the students. All measures of the study were combined into a paper-and-pencil survey. Following informing the students about the purpose of the study and measures, the survey was administered to the students who had volunteered to participate in the study during course hours. All participants completed the survey in approximately 35 minutes.

Measures

Social and Emotional Health Survey — Primary (SEHS-P)

The SEHS-P is a 16-item, self-report instrument developed to measure student positive psychological traits at school. The SEHS-P is comprised of four 4-item subscales, including optimism, gratitude, persistence, and zest (e.g., 'I am lucky to go to my school', 'I get really excited about my school projects', 'I expect good things to happen at my school', 'I finish all my class assignments'), and all items are scored using a 4-point response scale, ranging between 1 = *almost never* and 4 = *very often* (Furlong et al., 2013). Composite scores of the scale represent youth overall positive psychological functioning at school, namely student covitality (for more information, see Furlong, Dowdy, & Nylund-Gibson, 2018). Previous research indicated that the scale had an adequate-to-strong internal reliability and concurrent validity with criterion variables (Furlong et al., 2013; Renshaw, 2017). Telef (2016) investigated the psychometric properties of the SEHS-P for Turkish children and reported that the scale had adequate internal reliability and concurrent validity with criterion variables. However, two items had cross-factor loadings with the Turkish sample and were therefore removed (Telef, 2016). Given the rationale of the social-emotional model, the present study used the 16-item version of the SEHS-P (translated by Telef, 2016), and the psychometric properties of the SEHS-P were investigated using the present sample to enhance the usability of the scale for both research and practice; see the Results section.

Youth Internalising Behaviour Screener (YIBS)

The YIBS was developed as a 10-item screener for measuring internalising behaviour problems in Turkish adolescents and is comprised of two 5-item subscales: anxiety and depression (e.g., 'I generally feel tense and anxious', 'I feel depressed and pessimistic'). All items of the scale are scored using a 4-point Likert-type scale, ranging between (1) *almost never* and (4) *almost always*. Findings of the study showed that the scales had strong factor loadings, latent constructs (H) and internal reliability (α) coefficients, and concurrent validity with criterion variables (α range = .75–.90, H range = .84–.92; Arslan, 2018b). For the present sample, the YIBS was a strong internal reliability and was deemed to be relatively normally distributed (see Table 1).

Youth Externalising Behaviour Screener (YEBS)

Externalising behaviour problems were measured using the YEBS, which is a 12-item, self-report screener developed to measure externalising problems in Turkish children and adolescents.

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Table 1. Psychometric Properties of the Study Variables

Scales	Range	Mean	*SD*	Skewness	Kurtosis	α
Gratitude	4–16	14.66	2.26	−2.37	6.01	.78
Zest	4–16	11.64	3.18	−.22	−.73	.80
Optimism	4–16	14.30	2.35	−1.12	.76	.74
Persistence	4–16	13.60	2.10	−1.14	.93	.81
Student covitality	16–64	51.97	8.46	−1.07	1.56	.89
Prosocial behaviour	4–16	15.51	1.90	−1.83	5.18	.72
School belonging	10–40	32.79	4.87	−.84	.66	.86
Internalising problems	10–40	17.45	4.15	1.10	1.24	.85
Externalising problems	12–48	16.98	4.59	.90	.36	.77
Academic achievement	1–5	4.15	.90	−.81	.04	–

The YEBS consists of three subscales, including conduct problems, hyperactivity, and attention problems (e.g., 'I often fight with my friends', 'I can't stand sitting still for a long time, I feel disturbed'). All items are rated on a 4-point Likert-type scale, scoring from (1) *almost never* to (4) *almost always*. Findings indicated that scales had strong factor loadings, adequate-to-strong latent constructs (*H*) and internal reliability (α) coefficients, and concurrent validity with criterion variables (α range = .72–.82, *H* range = .72–.83; Arslan, 2018c). In the present study, the YEBS had an adequate internal reliability and relatively normal distribution (see Table 1).

Self-report academic achievement scale (SAAS)

Student academic achievement was measured using a single item ('During the past year, how would you describe the grades you received in school?') selected from the California Healthy Kids Survey (WestEd, 2017). The item was scored using a 5-point grade-range response scale: 5 = *very good* (within top 20%), 4 = *good* (top 21–40%), 3 = *average* (41–60%), 2 = *poor* (low 21–40%), 1 = *very poor* (low 1–20%). Higher scores represent higher academic achievement. Previous research has indicated that students' self-report academic achievement is strongly associated with their school-reported academic achievement (Shaw & Mattern, 2009). Finding from the present study showed that the SAAS had relatively normal distribution (see Table 1).

Student prosociality scale (SPS)

The SPS was used to measure prosocial behaviour at school. The scale is a 4-item, self-report instrument developed to assess youth prosocial behaviour within the school setting. The SPS includes four items (e.g., 'I help other kids who seem to be having a hard time', 'I am kind to my friends at school'), scoring via a 4-point Likert-type scale (1 = *almost never*, to 4 = *almost always*). Previous research demonstrated that the scale had adequate latent construct and internal reliability coefficients (Renshaw, 2014). Arslan (2018d) investigated the psychometric properties for Turkish adolescents, showing that the scale provided good data-model fit, strong factor loadings, adequate internal and latent construct reliability coefficient (α = .79, *H* = .80). Additionally, the scales had an adequate internal reliability and relatively normal distribution in this study (see Table 1).

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School belongingness scale (SES)

The SBS was developed for measuring sense of belonging at school in Turkish adolescents (Arslan & Duru, 2017). The scale is comprised of 10 items that represent two subdimensions: school acceptance and school exclusion (e.g., 'I think that I am not involved in most of the activities at school', 'I feel that I am accepted by other people at school'). All items are scored using a 4-point response scale (1 = *almost never* to 4 = *almost always*). Previous research has demonstrated that the SBS have a structurally reliable and valid measure for assessing school belonging in elementary and high school students (Arslan & Duru, 2017). In the present study, the internal reliability of SBS was strong, and the scale was deemed to be relatively normally distributed (see Table 1).

Data analyses

Before conducting the primary analyses, observed scale characteristics and correlation analysis were performed. Skewness and kurtosis scores were used to examine the normality assumption. The absolute scores of the kurtosis and skewness lower than |10| and |3| are considered as acceptable for normality (Kline, 2005). Pearson correlation analysis was conducted to examine the associations between variables. Following, a pair of latent variable path analysis (LVPA) was performed to investigate the predictive power of the measurement models of the SEHS-P and its subscales on youth psychological adjustment and school functioning identified by internalising and externalising problems, school belonging, academic achievement, and prosocial behaviour. Path analysis outcomes were interpreted using the standardised path coefficients, beta values and squared-multiple correlations (R^2). Finally, similar to previous research that used the classification approach to categorise the covitality and to compare the effects of groups (Furlong et al., 2013), students were divided into two groups using item-response (high group = covitality levels $\geq$ 48, low group = covitality levels $\leq$ 47). After these preliminary analyses, an independent-samples *t* test was conducted to investigate the differential effects of covitality status on student school functioning and psychological adjustment. All the data analyses were conducted using SPSS and AMOS version 22.

Results

Preliminary analyses

Confirmatory factor analysis results demonstrated that the SEHS-P had adequate data model fit ($\chi^2 = 288.445$, $df = 100$, $p < .001$, TLI = .90, CFI = .92, RMSEA 90% CI = .069 [.60, .79]) and strong factor loadings, ranging between .55 and 84 (see Figure 1). Further outcomes showed that the SEHS-P and its subscales had adequate-to-strong internal (α) and latent construct (H) reliability coefficients (α range = .74–.81, *H* range = .78–.86). These results provide further evidence suggesting that the SEHS-P could be used to measure student positive psychological traits in elementary schoolchildren.

Findings from observed scale characteristics indicated that skewness and kurtosis scores ranged from −2.37 to 6.04, and the scales had relatively normal distribution (Kline, 2005). Internal consistency (α) of the scales was between .68 and .89, representing adequate-to-strong internal reliability coefficients (see Table 1). Moreover, correlation analysis outcomes showed a significant and small-to-large association between study variables. Student covitality indicators were positively associated with prosocial behaviour, school belonging, and academic achievement, and negatively correlated with internalising and externalising problems. Likewise, prosocial behaviour, school belonging, and academic achievement were negatively associated with internalising and externalising problems (see Table 2).

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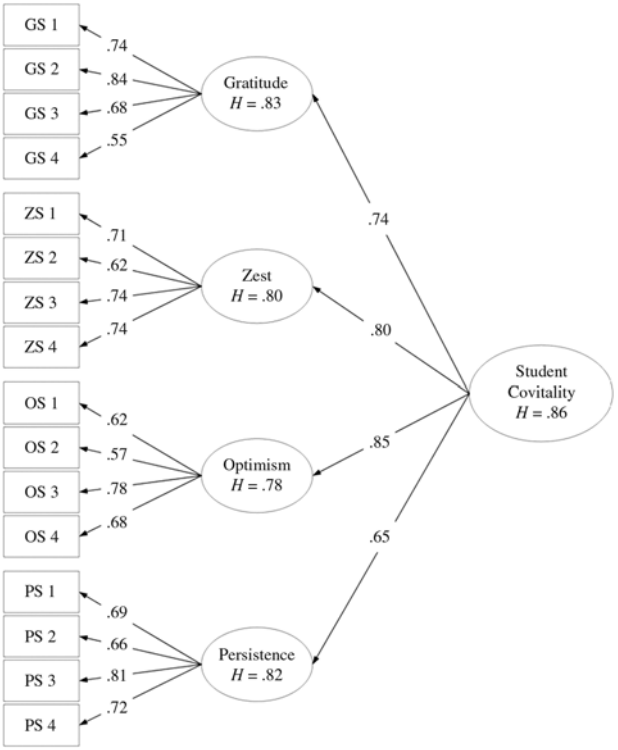


Figure 1. Second-order measurement model for the SEHS-P.
Note: SEHS-P = Social and Emotional Health Survey – Primary; H = latent construct reliability. All standardised path coefficients (λ) significant at the $p < .001$ level.

Primary analyses

The LVPA was performed to examine the association between student positive psychological traits and youth school functioning and psychological adjustment (i.e., internalising and externalising problems, prosocial behaviour, school belonging, and academic achievement). Findings from these analyses revealed that positive psychological traits were significantly associated with youth school adjustment outcomes, ranging from small-to-large effect size (R^2 range = .03–.23). Specifically, persistence was a strong predictor of the academic achievement ($\beta = .37$, $p < .001$, $R^2 = .14$), internalising ($\beta = -.40$, $p < .001$, $R^2 = .16$) and externalising problems ($\beta = -.43$, $p < .001$, $R^2 = .18$). Gratitude strongly predicted school belonging ($\beta = .44$, $p < .001$, $R^2 = .19$). Prosocial behaviour was strongly predicted by zest domain ($\beta = .48$, $p < .001$, $R^2 = .23$). The covitality construct significantly and positively predicted academic achievement ($\beta = .33$, $p < .001$), school belonging ($\beta = .50$, $p < .001$), and prosocial behaviour ($\beta = .59$, $p < .001$). It negatively predicted internalising ($\beta = -.50$, $p < .001$) and externalising problems ($\beta = -.46$, $p < .001$), ranging from moderate-to-large effect size (R^2 range = .11−.35). The covitality construct had stronger associations with youths' school functioning and psychological adjustment than each domain individually (see Table 3).

Following the path analyses, an independent-samples t test was performed to examine the differential effects of covitality status on youth school functioning and psychological adjustment indicators. Results from a between-group t test demonstrated that there were significant differences for the high covitality and low covitality groups: internalising problems ($t = 7.86$, $p < .001$), externalising problems ($t = 6.18$, $p < .001$), school belonging ($t = -6.63$, $p < .001$), prosocial behaviour ($t = -9.04$, $p < .001$), and academic achievement ($t = -4.25$, $p < .001$), ranging from

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Table 2. Correlations Between Variables

Scales	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Gratitude	–	.48**	.53**	.41**	.59**	.45**	.38**	−.39**	−.31**	.20**
2. Zest	.48**	–	.55**	.44**	.67**	.32**	.43**	−.35**	−.33**	.18**
3. Optimism	.53**	.55**	–	.47**	.66**	.38**	.42**	−.33**	−.28**	.20**
4. Persistence	.41**	.44**	.47**	–	.55**	.30**	.42**	−.36**	−.39**	.35**
5. Student covitality	.59**	.67**	.66**	.55**	–	.33**	.42**	−.38**	−.30**	.22**
6. School belonging	.45**	.32**	.38**	.30**	.46**	–	.36**	−.47**	−.37**	.25**
7. Prosocial behaviour	.38**	.43**	.42**	.42**	.54**	.36**	–	−.29**	−.33**	.14**
8. Internalising problems	−.39**	−.35**	−.33**	−.36**	−.45**	−.47**	−.29**	–	.71**	−.22**
9. Externalising problems	−.31**	−.33**	−.28**	−.39**	−.42**	−.37**	−.33**	.71**	–	−.20**
10. Academic achievement	.19**	.16**	.19**	.33**	.29**	.25**	.14**	−.22**	−.20**	–

Note: *$p < .05$. **$p < .001$.

Table 3. Path Coefficients and Multiple Correlations from the Latent Variable Path Analysis

	Covitality constructs									
Outcomes	GS β	R^2	ZS β	R^2	OS β	R^2	PS β	R^2	CS β	R^2
Prosocial behaviour	.40**	.16	.48**	.23	.44**	.19	.46**	.21	.59**	.35
Externalising problems	−.32**	.10	−.36**	.13	−.26**	.07	−.43**	.18	−.46**	.21
Internalising problems	−.39**	.15	−.39**	.15	−.32**	.10	−.40**	.16	−.50**	.25
Academic achievement	.22**	.05	.17**	.03	.19**	.04	.37**	.14	.33**	.11
School belonging	.44**	.19	.33**	.11	.39**	.15	.32**	10	.50**	.25

Note: Interpretation of R^2 = .00–.009 = negligible, .01–.059 = small, .06–.139 = medium, > .14 = large. GS = Gratitude Scale, ZS = Zest Scale, OS = Optimism Scale, PS = Persistence Scale, and CS = Social and Emotional Health Survey — Primary. **$p < .001$.

Table 4. Between-Group *t* Test Outcomes for Covitality Groups

	Low group		High group		*t* test outcomes		
Outcomes	*M*	*SD*	*M*	*SD*	*t*	*df*	Cohen's *d* [95% CI]
Prosocial behaviour	13.14	2.28	14.96	1.47	−9.04**	377	1.06 [−1.30, −.82]
Externalising problems	19.34	4.31	16.16	4.42	6.18**	377	.72 [.49, .96]
Internalising problems	19.72	5.24	15.31	4.63	7.86**	377	.92 [.68, 1.16]
Academic achievement	3.83	.99	4.27	.83	−4.25**	364	.51 [−.74, −.27]
School belonging	30.11	5.09	33.76	4.48	−6.63**	365	.79 [−1.02, −.55]

Note: High group ($n = 280$) = covitality levels ≥ 48, low group ($n = 99$) = covitality levels ≤ 47; Cohen's *d* effect size interpretation = .00–.19 = negligible, .20–.49 = small, .50–.79 = moderate, .80+ = large. **$p < .001$.

moderate-to-large effect sizes (Cohen's *d* range = .51–1.06). Children in the high covitality group reported significantly higher levels of academic achievement, school belonging and prosocial behaviour, and lower levels of internalising and externalising problems than children in the low covitality group (see Table 4). Taken together, these outcomes suggest that covitality is strongly associated with elementary school students' school functioning and psychological adjustment.

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Discussion

Integrating positive indicators of mental health provide significant implications for the early identification of emotional challenges and supporting interventions that protect youth mental health and wellbeing (DiStefano & Kamphaus, 2006). The present study investigated the associations between positive psychological traits, school functioning, and psychological adjustment of elementary schoolchildren. Correlation analysis outcomes showed that student covitality indicators were positively associated with prosocial behaviour, school belonging and academic achievement, and negatively correlated with internalising and externalising problems. Path analysis results revealed that the positive psychology constructs had significant and large associations with prosocial behaviour, school belonging, internalising problems and externalising problems, as well as small-to-large associations with student academic achievement. Further, findings of this study indicated that youths with high positive psychological traits reported higher levels of the prosocial behaviour, school belonging and academic achievement, and lower levels of externalising and internalising problems. Overall, the combination of these positive traits, namely covitality, had stronger associations with youths' school functioning and psychological adjustment than the individual constructs that comprise covitality. Taken together, the results suggest substantial associations between positive psychological traits and school functioning and psychological adjustment in elementary schoolchildren.

Findings of the study showed the significant and positive association between positive psychological traits (i.e., zest, gratitude, persistence, and optimism) and student academic achievement, school belonging, and prosocial behaviour. Particularly, persistence was found to be a strong predictor of academic achievement, while prosocial behaviour and school belonging were strongly predicted by the zest and gratitude domains. Consistent with these outcomes, previous research indicated that these positive traits were significantly associated with youth school functioning and wellbeing indicators (Duckworth, Peterson, Matthews, & Kelly, 2007; Furlong et al., 2013; Jones et al., 2013; Renshaw, 2017; Sheridan, Boman, Mergler, & Furlong, 2015). Telef and Furlong (2017) investigated the association between covitality constructs and subjective wellbeing in Turkish and U.S. adolescents. Their outcomes revealed that zest was a significant predictor of subjective wellbeing in Turkish adolescents, whereas zest, gratitude, and optimism significantly predicted subjective wellbeing of U.S. adolescents. Wilkins and colleagues (2015) found the significant association between positive psychological traits, school engagement, and prosocial behaviour among primary schoolchildren. Moreover, outcomes of this study indicated that students with high covitality reported fewer internalising and externalising problems compared with those who had low covitality. Positive psychological traits had a moderate-to-large association with youths' internalising and externalising problems. Specifically, the persistence domain was found a strong predictor of internalising and externalising problems. Consistent with these outcomes, studies showed that youths with higher externalising and internalising problems reported lower levels of zest, optimism, persistence, and gratitude (Ames, Rawana, Gentile, & Morgan, 2015; Dvorak, Lamis, & Malone, 2013; Ey et al., 2005; McCullough, Emmons, & Tsang, 2002; Wong & Lim, 2009). Consequently, these outcomes provide further evidence to support the association between positive psychological traits and school-based outcomes and psychological characteristics of elementary school students.

Consistent with the social-emotional health model (Furlong et al., 2013), outcomes of the present study indicated that the combination of the positive psychological traits had stronger associations with school-based outcomes and psychological adjustment than the individual positive traits. In the social-emotional health approach, covitality is characterised as the co-occurrence of multiple positive psychological traits, which increases the likelihood of positive outcomes and promotes youth mental health and wellbeing (Furlong et al., 2014). Findings of this study support the covitality model, which proposes that the 'the sum is greater than the parts' (Furlong et al., 2014). Previous research demonstrated that covitality was more strongly associated with a verity of valued youth outcomes (Arslan, 2018a; Furlong et al., 2013; Keyfitz et al., 2013; Pennell

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et al., 2015; Renshaw, 2017; Renshaw & Arslan, 2016; Wilkins et al., 2015). Covitality was associated with more prosocial behaviours, better academic achievement, fewer internalising problems, greater school satisfaction, and fewer social relationship difficulties in children (Arslan, 2018a; Telef, 2016; Wang, Yang, Jiang, & Furlong, 2018). Furlong and colleagues (2013) reported that covitality was significantly associated with caring relationships, prosocial behaviour, school rejection, and school acceptance. Students with high covitality were more likely to feel safe, whereas youths with low covitality were more likely to report that they had been bullied in school (Furlong et al., 2013). Furthermore, students classified into higher covitality groups reported greater school connectedness and academic efficacy compared with those in lower covitality groups (Renshaw, 2017). Arslan (2018a) found a significant association between covitality and many youth outcomes, including internalising and externalising problems, subjective wellbeing, and academic achievement in Turkish high school adolescents. Furthermore, the outcomes revealed that the combined effect of each of the covitality domains on youth psychological adjustment and wellbeing was higher than the effect of each positive construct individually (Arslan, 2018a). Taken together, these outcomes provide further evidence that the combination of youths' positive psychological constructs is more powerful, rather than any of the unique constructs in isolation.

Conclusions and limitations

Findings from the present study should be considered in light of a number of methodological limitations. First, the study was conducted using a cross-sectional analytic approach that makes it difficult to determine causality and self-report data. Future research should be performed to explore the effects of covitality constructs using different data collection and analytic approaches, such as longitudinal, qualitative, or multiple. Second, participants were derived from a convenience sample of elementary school students in an urban city in Turkey. In order to increase the generalisability of the study outcomes, further research is warranted to examine the positive psychological constructs in a diverse sample with a large number of participants. Moreover, youth school functioning was assessed using self-report academic achievement, school belonging, and prosocial behaviour. Student school functioning is a broad construct, including a wide range of outcomes (Dick & Riddell, 2010). Therefore, the effects of positive psychological constructs on youth school functioning can be investigated using different school outcomes (e.g., peer relationships, school attendance, and school-report academic achievement) in future research.

Despite the limitations presented above, the results of the present study provide several implications for research and practice in the context of school-based mental health services. First, the outcomes showed that positive psychological traits (i.e., gratitude, zest, persistence, and optimism) significantly predicted youth school functioning and psychological adjustment. Positive psychological strengths play a role in understanding of positive youth development and provide clues for designing intervention and prevention services (Furlong et al., 2013; Ostaszewski & Zimmerman, 2006). Designing school-based prevention and intervention programs is suggested for mental health providers to reduce risk factors and promote youth strengths (American Psychological Association, 2014). Previous research has supported the effectiveness of positive psychological construct-based interventions on youth educational, social, emotional and behavioural functioning (e.g., gratitude, optimism; Froh, Miller, & Snyder, 2007; Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001). Based on the results of the present study, school counsellors or other professionals could design school-based intervention programs to support youths' school functioning and psychological adjustment by enhancing their gratitude, zest, persistence, and optimism resources. However, the present study results suggest that building one domain alone (e.g., zest) might not be sufficient to promote youth school functioning and psychological adjustment (Pennell et al., 2015). School-based mental health providers might consider the effects of the covitality in designing of the positive psychology-based prevention and intervention programs for youths. Given the complete mental health framework, school-based mental health providers

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and other professionals might integrate strengths-based preventions and interventions with traditional practices in school settings (Moffa, Dowdy, & Furlong, 2016; Renshaw et al., 2014).

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References

American Psychological Association. (2014). Guidelines for prevention in psychology. *The American Psychologist*, **69**, 285–296. doi: 10.1037/a0034569.

Ames, M. E., Rawana, J. S., Gentile, P., & Morgan, A. S. (2015). The protective role of optimism and self-esteem on depressive symptom pathways among Canadian Aboriginal youth. *Journal of Youth and Adolescence*, **44**, 142–154. doi: 10.1007/s10964-013-0016–4.

Arslan, G. (2018a). Exploring the effects of the positive psychological strengths on psychological adjustment in adolescents. *Child Indicators Research*. Advance online publication. doi: 10.1007/s12187-018-9589-5.

Arslan, G. (2018b). *Development and initial validation of the Youth Internalizing Behavior Screener: A brief measure of emotional problems in adolescents*. Manuscript submitted for publication.

Arslan, G. (2018c). Development and validation of the Youth Externalizing Behavior Screener: A brief and effective measure of behavioral problems. *International Journal of School & Educational Psychology*. Advance online publication. doi: 10.1080/21683603.2018.1466747.

Arslan, G. (2018d). *Ergenlerde okul aidiyeti: Okul işlevleri ve psikolojik uyum problemleri ile ilişkisinin incelenmesi [School belonging in adolescents: Examining the associations with school functioning and psychological adjustment problems]*. Manuscript submitted for publication.

Arslan, G., & Duru, E. (2017). Initial development and validation of the School Belongingness Scale. *Child Indicators Research*, **10**, 1043–1058.

Arslan, G., & Renshaw, T. L. (2018). Student subjective wellbeing as a predictor of adolescent problem behaviors: A comparison of first-order and second-order factor effects. *Child Indicators Research*, **11**, 507–521. doi: 10.1007/s12187-017-9444-0.

Boman, P., Mergler, A., & Pennell, D. (2017). The effects of covitality on well-being and depression in Australian high school adolescents. *Clinical Psychiatry*, **3**, 1–4. doi: 10.21767/2471-9854.100046.

Dick, B. D., & Riddell, R. P. (2010). Cognitive and school functioning in children and adolescents with chronic pain: A critical review. *Pain Research and Management*, **15**, 238–244. doi: 10.1155/2010/354812.

DiStefano, C., & Kamphaus, R. W. (2006). Investigating subtypes of child development: A comparison of cluster analysis and latent class cluster analysis in typology creation. *Educational and Psychological Measurement*, **66**, 778–794. doi: 10.1177/0013164405284033.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, **92**, 1087–1101. doi: 10.1037/0022-3514.92.6.1087.

Dvorak, R. D., Lamis, D. A., & Malone, P. S. (2013). Alcohol use, depressive symptoms, and impulsivity as risk factors for suicide proneness among college students. *Journal of Affective Disorders*, **149**, 326–334. doi: 10.1016/j.jad.2013.01.046.

Ey, S., Hadley, W., Allen, D. N., Palmer, S., Klosky, J., Deptula, D., … **Cohen, R.** (2005). A new measure of children's optimism and pessimism: The Youth Life Orientation Test. *Journal of Child Psychology and Psychiatry*, **46**, 548–558. doi: 10.1111/j.1469-7610.2004.00372.x.

Froh, J. J., Miller, D. N., & Snyder, S. (2007). Gratitude in children and adolescents: Development, assessment, and school-based intervention. *School Psychology Forum*, **2**, 1–13.

Furlong, M. J., Dowdy, E., Carnazzo, K., Bovery, B., & Kim, E. (2014). Covitality: Fostering the building blocks of complete mental health. *NASP Communiqué*, **42**, 28–29.

Furlong, M. J., Dowdy, E., & Nylund-Gibson, K. (2018). *Social Emotional Health Survey– Secondary Manual*. Santa Barbara, CA: UC Santa Barbara International Center for School-Based Youth Development. Retrieved from http://www.project-covitality.info/.

Furlong, M. J., You, S., Renshaw, T. L., O'Malley, M. D., & Rebelez, J. (2013). Preliminary development of the Positive Experiences at School Scale for elementary school children. *Child Indicators Research*, **6**, 753–775. doi: 10.1007/s12187-013-9193-7.

Furlong, M. J., You, S., Renshaw, T. L., Smith, D. C., & O'Malley, M. D. (2014). Preliminary development and validation of the Social and Emotional Health Survey for Secondary School Students. *Social Indicators Research*, **117**, 1011–1032.

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research*, **54**, 81–108. doi: 10.1023/A:1007219227883.

Ito, A., Smith, D. C., You, S., Shimoda, Y., & Furlong, M. J. (2015). Validation and utility of the Social Emotional Health Survey—Secondary for Japanese students. *Contemporary School Psychology*, **19**, 243–252. doi: 10.1007/s40688-015-0068-4.

Jones, C. N., You, S., & Furlong, M. J. (2013). A preliminary examination of covitality as integrated well-being in college students. *Social Indicators Research*, **111**, 511–526. doi: 10.1007/s11205-012-0017-9.

https://doi.org/10.1017/jgc.2018.24 Published online by Cambridge University Press

Kaplan, Y. (2017). School–specific subjective wellbeing and emotional problems among high school adolescents. *Journal of Positive Psychology and Wellbeing*, **1**, 1–9.

Keyfitz, L., Lumley, M. N., Hennig, K. H., & Dozois, D. J. A. (2013). The role of positive schemas in child psychopathology and resilience. *Cognitive Therapy and Research*, **37**, 97–108. doi: 10.1007/s10608-012-9455-6.

Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*. New York, NY: Guilford Press.

Lee, S. Y., You, S., & Furlong, M. J. (2016). Validation of the Social Emotional Health Survey — Secondary for Korean students. *Child Indicators Research*, **9**, 73–92. doi: 10.1007/s12187-014-9294-y.

Lenzi, M., Dougherty, D., Furlong, M. J., Sharkey, J., & Dowdy, E. (2015). The configuration protective model: Factors associated with adolescent behavioral and emotional problems. *Journal of Applied Developmental Psychology*, **38**, 49–59. doi: 10.1016/j.appdev.2015.03.003.

Marino, C., Hirst, C. M., Murray, C., Vieno, A., & Spada, M. M. (2017). Positive mental health as a predictor of problematic internet and Facebook use in adolescents and young adults. *Journal of Happiness Studies*. Advance online publication. doi: 10.1007/s10902-017-9908-4.

McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: a conceptual and empirical topography. *Journal of Personality and Social Psychology*, **82**, 112–127. doi: 10.1037//0022-3514.82.1.112.

Moffa, K., Dowdy, E., & Furlong, M. J. (2016). Exploring the contributions of school belonging to complete mental health screening. *The Educational and Developmental Psychologist*, **33**, 16–32.

Moore, S. A., Widales-Benitez, O., Carnazzo, K. W., Kim, E. K., Moffa, K., & Dowdy, E. (2015). Conducting universal complete mental health screening via student self-report. *Contemporary School Psychology*, **19**, 253–267.

Ostaszewski, K., & Zimmerman, M. A. (2006). The effects of cumulative risks and promotive factors on urban adolescent alcohol and other drug use: A longitudinal study of resiliency. *American Journal of Community Psychology*, **38**, 237–249. doi: 10.1007/s10464-006-9076-x.

Pennell, C., Boman, P., & Mergler, A. (2015). Covitality constructs as predictors of psychological well-being and depression for secondary school students. *Contemporary School Psychology*, **19**, 276–285. doi: 10.1007/s40688-015-0067-5.

Quayle, D., Dziurawiec, S., Roberts, C., Kane, R., & Ebsworthy, G. (2001). The effect of an optimism and life skills program on depressive symptoms in preadolescence. *Behaviour Change*, **18**, 194–203.

Renshaw, T. L. (2014). *Preliminary psychometric properties of the Student Prosociality Scale, Academic Perseverance Scale, and Youth Risks and Assets Survey*. Retrieved from Social Science Research Network (SSRN2439539).

Renshaw, T. L. (2017). Technical adequacy of the Positive Experiences at School Scale with adolescents. *Journal of Psychoeducational Assessment*, **35**, 323–335. doi: 10.1177/0734282915627920.

Renshaw, T. L., & Arslan, G. (2016). Psychometric properties of the Student Subjective Wellbeing Questionnaire with Turkish adolescents: A generalizability study. *Canadian Journal of School Psychology*, **31**, 139–151. doi: 10.1177/0829573516634644.

Renshaw, T. L., & Arslan, G. (2018). Testing the Psychological Wellbeing and Distress Screener with Turkish adolescents. *International Journal of School & Educational Psychology*. Advance online publication. doi: 10.1080/21683603.2017.1414007.

Renshaw, T. L., & Cohen, A. S. (2014). Life satisfaction as a distinguishing indicator of college student functioning: Further validation of the two-continua model of mental health. *Social Indicators Research*, **117**, 319–334. doi: 10.1007/s11205-013-0342-7.

Renshaw, T. L., Furlong, M. J., Dowdy, E., Rebelez, J., Smith, D. C., O'Malley, M. D., ... Strom, I. F. (2014). Covitality: A synergistic conception of adolescents' mental health. In M. J. Furlong, R. Gilman, and E. S. Huebner (Eds.), *Handbook of Positive Psychology in Schools* (2nd ed., pp. 12–32). New York, NY: Routledge/Taylor & Francis.

Shaw, E. J., & Mattern, K. D. (2009). *Examining the Accuracy of Self-Reported High School Grade Point Average (No. 2009-5)*. New York, NY: The College Board

Sheridan, Z., Boman, P., Mergler, A., & Furlong, M. J. (2015). Examining well-being, anxiety, and self-deception in university students. *Cogent Psychology*, **2**, 1–17. doi: 10.1080/23311908.2014.993850.

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, **37**, 52–68.

Suldo, S., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective well-being, psychopathology, and mental health status yielded from a dual factor model. *The Journal of Positive Psychology*, **6**, 17–30. doi: 10.1080/17439760.2010.536774.

Telef, B. B. (2016). Okulda Pozitif Yaşantılar Ölçeği geçerlik ve güvenirlik çalışması [Validity and reliability study of Positive Experiences at School Scale]. *Journal of Human Sciences*, **13**, 2475–2487. doi: 10.14687/jhs.v13i2.3562.

Telef, B. B., & Furlong, M. J. (2017). Social and emotional psychological factors associated with subjective well-being: A comparison of Turkish and California adolescents. *Cross-Cultural Research*, **51**, 491–520. doi: 10.1177/1069397117694815.

Wang, C., Yang, C., Jiang, X., & Furlong, M. (2018). Validation of the Chinese version of the Social Emotional Health Survey– Primary. *International Journal of School & Educational Psychology*, **6**, 62–74. doi: 10.1080/21683603.2016.1272026.

https://doi.org/10.1017/jgc.2018.24 Published online by Cambridge University Press

Weiss, A., King, J. E., & Enns, R. M. (2002). Subjective well-being is heritable and genetically correlated with dominance in chimpanzees. *Journal of Personality and Social Psychology*, **83**, 1141–1149.

Weiss, A., & Luciano, M. (2015). The genetics and evolution of covitality. In A. Weiss (Ed.), *Genetics of Psychological Well-Being: The Role of Heritability and Genetics in Positive Psychology* (pp. 146–160). New York, NY: Oxford University Press.

WestEd. (2017). *California Healthy Kids Survey*. Retrieved from http://chks.wested.org.

Westerhof, G. J., & Keyes, C. L. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, **17**, 110–119. doi: 10.1007/s10804-009-9082-y.

Wilkins, B., Boman, P., & Mergler, A. (2015). Positive psychological strengths and school engagement in primary school children. *Cogent Education*, **2**, 1–11. doi: 10.1080/2331186X.2015.1095680.

Wong, S. S., & Lim, T. (2009). Hope versus optimism in Singaporean adolescents: Contributions to depression and life satisfaction. *Personality and Individual Differences*, **46**, 648–652. doi: 10.1016/j.paid.2009.01.009.

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