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ARTICLE



Testing the Psychological Wellbeing and Distress Screener with Turkish adolescents

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ABSTRACT

This report presents initial psychometrics from testing a cultural adaptation of the Psychological Wellbeing and Distress Screener (PWDS) with a sample of urban adolescents in Turkey ($N = 399$). Results from confirmatory factor analyses indicated that responses to the Turkish version of the measure (PWDS-T) were characterized by a two-factor measurement model, and findings from latent variable path analyses indicated this same measurement model was predictive of youths' responses to measures of domain-specific social support (i.e., peer, family, and school) and domain-general emotional functioning (i.e., positive and negative affect). Taken together, findings provide preliminary evidence suggesting the PWDS-T is a technically adequate measure of Turkish adolescents' psychological wellbeing and distress, and therefore may be useful for school mental health screening purposes. Further research is needed to replicate and generalize these findings as well as to establish the classification utility of PWDS scores in school mental health practice.

KEYWORDS

bidimensional mental health; dual-factor mental health; psychological wellbeing; psychological distress; school mental health screening

The *bidimensional model of mental health* (BMMH; Renshaw & Bolognino, 2017), which is synonymous with the *dual-factor* (Suldo & Shaffer, 2008) and *two-continua* (Keyes, 2007) models, posits that “positive mental health” and “negative mental health” are related yet distinct phenomena—and that both warrant assessment and intervention on their own terms. Within research investigating the BMMH, indicators of negative mental health are typically operationalized as measures of psychopathology (i.e., internalizing and externalizing symptoms), whereas indicators of positive mental health are operationalized as measures of subjective wellbeing (e.g., Greenspoon & Sasklofske, 2001; Suldo, Thalji, & Ferron, 2011). Given the terms *mental health* and *behavioral health* are often used interchangeably in research and practice with youth (e.g., Kase et al., 2017), it is also reasonable to conceptualize the BMMH as a behavioral health model. From this perspective, the term *behavior* is understood in the broadest possible sense, referring to everything humans do—including thinking, feeling, and acting in the world. Viewed as a behavioral health model, the two dimensions represented within the BMMH could be reconceptualized as *problem behavior*—defined as any behavior that is deemed socially or personally intolerable and therefore warrants intervention—and *well-*

being behavior—or any behavior that is personally or socially desirable and therefore warrants promotion (cf. Renshaw, 2016). To date, however, research investigating the viability of the BMMH has primarily been conceptualized in terms of traditional mental health concepts, as opposed to more general behavioral health concepts.

The BMMH can be contrasted with a *unidimensional* model of mental health, which suggests that mental health is best understood as a single continuum, with positive mental health on one end and negative mental health on the other end (Payton, 2009). The unidimensional model implies that an observed lack of psychopathology is indicative, by default, of the presence of subjective wellbeing, and vice versa. Thus, when operationalizing the unidimensional model of mental health in research or practice, it is only necessary to assess one end of the mental health continuum, as it allows for information to be indirectly derived regarding one's functioning at the other end of the continuum. To date, the modus operandi of school-based mental health screening has been to assume a unidimensional model of mental health and, as a result, assess only internalizing or externalizing symptoms (e.g., Cook et al., 2011; Renshaw & Cook, 2016). With such data, students

are classified according to normative schemes based on symptom severity—such as “typical,” “at-risk,” or “elevated”—and these classifications are then used to inform intervention-related decisions (Dowdy, Ritchey, & Kamphaus, 2010). There is a growing body of evidence supporting the reliability, validity, and practical utility of school-based measures and classification schemes grounded in a unidimensional model of mental health (e.g., Eklund, Kilgus, Von der Embse, 2017; Eklund et al., 2009).

In contrast, school-based operationalizations of the BMMH allow for mixed mental health classifications, as students can be classified as more-or-less mentally healthy in one regard (i.e., subjective wellbeing indicators), while also being classified as more-or-less mentally unhealthy in another regard (i.e., psychopathology symptoms; Renshaw, Eklund, Bolognino, & Adodo, 2016). When scores derived from BMMH measurement models are used to create a mental health classification scheme, the precedent has been to investigate between-group differences among four mixed-status groups. Although these groups have been named differently, depending on the study, the defining features are similar, with one iteration as follows: *mentally healthy* (i.e., scores indicating average-to-high levels of wellbeing paired with low-to-average levels of symptoms), *mentally unhealthy* (i.e., low levels of wellbeing paired high levels of symptoms), *symptomatic but content* (i.e., average-to-high levels of wellbeing paired with high levels of symptoms), and *asymptomatic yet discontent* (i.e., low levels of wellbeing paired with average-to-low levels of symptoms; Renshaw & Cohen, 2014). To date, empirical studies investigating the BMMH have shown that measurement and classification models accounting for both symptoms and wellbeing indicators are more strongly predictive of valued student outcomes compared to unidimensional models. For example, Renshaw et al. (2016) found that, compared to unidimensional classification, BMMH classification accounted for consistently higher proportions of the variance in concurrent outcomes for academic achievement, physical health, social connectedness, and life satisfaction. Moreover, Suldo, Thalji-Raitano, Kiefer, and Ferron (2016) found that consideration of wellbeing within BMMH classification provided greater predictive power in relation to the buffering effects against longitudinal declines in academic performance and school attendance. Other studies in this line of work have demonstrated similar findings, showing that the inclusion of wellbeing—in addition to psychopathology—within classification models allows for the identification of students who have differential concurrent or longitudinal outcome trajectories (e.g., Eklund,

Dowdy, Jones, & Furlong, 2011; Suldo & Shaffer, 2008; Suldo et al., 2011).

One potential implication for practice drawn from BMMH research is that there may be value added in applying a bidimensional approach within school mental health screening frameworks, which have historically been unidimensional in nature (Dowdy, Furlong, Eklund, Saeki, & Ritchey, 2010). Given that school-based mental health professionals are often incapable of providing services to all students identified via screening, innovations in assessment approaches and techniques are warranted to aid in triaging screening results (Renshaw, 2017). Although BMMH screening techniques may seem promising as one such innovation, the previous research in this area has largely used lengthy measurement protocols that are incompatible with screening frameworks (e.g., Suldo & Shaffer, 2008). Thus, there is a conspicuous lack of screening instruments that could function for this express purpose, as mental health screeners developed and validated for use in schools have historically ignored or underrepresented wellbeing behavior while focusing prominently on problem behavior (cf. Goodman, 2001; Reynolds & Kamphaus, 2015). Although other school-based mental health screeners include items that target a balance of symptoms and wellbeing indicators, these multidimensional items are often reverse-coded and scored within the same subscales, resulting in unidimensional (as opposed to bidimensional) classification schemes (e.g., Kilgus, Sims, Von Der Embse, & Taylor, 2016).

To date, it appears that the Psychological WellBeing and Distress Screener (PWDS; Renshaw & Bolognino, 2017) is the only measure that is explicitly designed for use as a school-based screener of student bidimensional mental health. The PWDS is a 10-item self-report behavior rating scale that consists of two five-item subscales for assessing the mental health dimensions posited by the BMMH: psychological wellbeing and psychological distress. The PWDS was developed using preexisting items within the self-report version of the Health Behavior in School-Aged Children Survey (HBSC), which is a cross-national survey sponsored by the World Health Organization (see www.hbsc.org). Items targeting psychological wellbeing account for both affective and adaptive behaviors, whereas items targeting psychological distress account for affective or emotional problems. The original PWDS development and validation studies were conducted using the 2009–2010 HBSC sample from the United States, which consisted of a nationally represented sample of youth in Grades 5–10 ($N = 12,642$; Iannotti, 2013). Findings from these studies indicated that responses to the PWDS were

characterized by a sound two-factor latent structure, that both factors were characterized by at least adequate internal reliability ($\alpha > .75$), that the measurement model was invariant across several demographic factors (i.e., grade level, race or ethnicity, and residence classification), and that classifications derived from scores on the measure had concurrent validity with a measure of life satisfaction (Renshaw & Bolognino, 2017). A full presentation of PWDS items and response options is presented in Table 1.

Considering the context sketched above, it is noteworthy that all of the previous studies investigating the BMMH with youth have been conducted with samples of youth from the United States, including the development study of the PWDS. Thus, there is no evidence available regarding the generalizability of the BMMH model to students in other nations, and, more specifically, there are no cultural adaptations of instruments available for researching the BMMH within school-based screening frameworks. Given that mental health has been shown to be consistently related to youths' educational and quality-of-life outcomes around the world (World Health Organization, 2014), we suggest that such research and measures are warranted in order to advance our scientific understanding of how to best promote mental health at the international level. The purpose of the present study, then, was to investigate the psychometrics of a cultural adaptation of the PWDS with a sample of Turkish youth. To accomplish this, a Turkish version of the PWDS was developed (PWDS-T) and tested to investigate the structural validity and concurrent validity of responses to the measure. We hypothesized that results would be similar to those of the original PWDS development study, indicating that the PWDS-T would have a sound two-factor

measurement model that predicted theoretically relevant concurrent outcomes. Furthermore, considering recent political events resulting in the movement of many Turkish families to North America and Europe, we expect the present study will be of interest to school mental health professionals working with Turkish youth across various nations, as it contributes to a growing literature of mental health measures that have been validated for use with this particular population (e.g., Renshaw & Arslan, 2016; Telef & Furlong, 2016).

Method

Participants

Participants were 399 students enrolled in Grades 6–11 (Grade 6 = 24.3%, Grade 7 = 19.5%, Grade 8 = 29.1%, Grade 9 = 14.1%, Grade 11 = 13.1%) in two secondary schools—one middle school and one high school—located in an urban city in Turkey. Approximately half of the participants were female (48.7%) and ranged in age from 11 to 18 years ($M = 13.85$, $SD = 1.57$). All participants identified as having the same ethnic background (i.e., Turkish), yet their socioeconomic status (SES) varied across classes (lower SES = 18.8%, middle SES = 48.4%, upper SES = 32.8%). Although all students in both secondary schools were invited to participate, informed parental consent, student assent, and useable survey responses (missing data $\leq 10\%$) were obtained from only 59% of the total sampling pool. Participants completed a pencil-and-paper survey during school hours, which included demographic questions (assessing only the characteristics reported on above), the PWDS-T, and the concurrent validity measures (described below). Prior to contacting and soliciting participants, the present study was approved by the local university's ethical review board regarding research with human subjects.

Measures

The PWDS (Renshaw & Bolognino, 2017) was the primary measure of interest in the present study. As described above, the PWDS is a 10-item self-report behavior rating scale that consists of two five-item subscales—one representing psychological wellbeing and the other representing psychological distress—which are intended to be used for screening students' bidimensional mental health in schools. All PWDS items and response options are presented in Table 1. Findings from the original PWDS development study indicated that responses to the instrument could be characterized by a sound two-factor latent structure,

Table 1. PWDS scales, items, and response formats.

Scale/Item Stem/Item	Response Format
Psychological Wellbeing Scale	
<i>Thinking about last week . . .</i>	
PWS1. Have you got on well at school?	A
PWS2. Have you been able to pay attention?	A
PWS3. Have you felt full of energy?	A
PWS4. Have you felt fit and well?	A
PWS5. Have you had fun with your friends?	A
Psychological Distress Scale	
<i>Thinking about last week . . .</i>	
PDS1. Have you felt sad?	A
PDS2. Have you felt lonely?	A
<i>In the last 6 months how often have you had the following . . .</i>	
PDS3. Feeling low.	B
PDS4. Feeling nervous.	B
PDS5. Irritability or bad temper.	B

Note. Response format A: 1 = *never*, 2 = *seldom*, 3 = *quite often*, 4 = *very often*, 5 = *always*. Response format B: 1 = *rarely or never*, 2 = *about every month*, 3 = *about every week*, 4 = *more than once a week*, 5 = *about every day*.

that both factors were characterized by at least adequate internal reliability ($\alpha > .75$), that the measurement model was invariant across several demographic factors (i.e., grade level, race or ethnicity, and residence classification), and that classifications derived from scores on the measure had concurrent validity with a measure of life satisfaction (Renshaw & Bolognino, 2017). For the purposes of the present study, a cultural adaptation of the English version of the PWDS was created by translating the measure into Turkish using a process consistent with the International Test Commission (ITC, 2005) guidelines for adapting tests. First, both the testing technique and item content were deemed appropriate for Turkish adolescents. Next, a multiphase translation process was used to validate the wording of test items, response options, and directions. To begin, the English version of the PWDS was translated into Turkish by three independent language experts living in Turkey. This Turkish translation was then reviewed by two additional language experts living in Turkey, who revised the wording of the measure to account for cultural and readability considerations. The revised version of this consensus translation was then back-translated into English by two additional language experts, after which a final independent language expert verified the back-translation in relation with the original English version. Similar to the original English version, the PWDS-T is scored by summing the item responses into composite scores for the respective subscales. A copy of the PWDS-T can be obtained by contacting the authors.

Three subscales from the Social and Emotional Health Survey (SEHS; Furlong, You, Renshaw, Smith, & O'Malley, 2014; You et al., 2014) were used as concurrent validity measures of school, peer, and family support. Research has consistently demonstrated that youths' mental health covaries at mild-to-moderate levels with self-reports of social support (e.g., McPherson et al., 2014), and thus it was hypothesized that similar relationships would be found among scores obtained in the present study. Each of these SEHS subscales is comprised of three items that are arranged along a four-point response scale (1 = *not at all true of me*, 4 = *very much true of me*). Although the SEHS was originally developed and validated in English, Telef and Furlong (2016) adapted a Turkish version of the measure (SEHS-T) and have demonstrated validity evidence supporting its use with this population.

In addition to the SEHS-T, the two subscales of the Positive and Negative Experience Scale (PNES; Diener et al., 2010) were used as concurrent validity measures of positive and negative affect. Previous research has consistently demonstrated that domain-general

appraisals of affect are strongly correlated with scores from other mental health measures (e.g., Watson, Clark, & Tellegen, 1988), as affect is typically considered to be a subdomain of mental health functioning, and therefore similar relationships were expected among scores obtained in the present study. Both PNES subscales are comprised of six items that are arranged along a five-point response scale (1 = *very rarely or never*, 5 = *very often or always*). Given the PNES was originally developed in English, a version adapted by Telef (2013) for use with Turkish adolescents (PNES-T) was used for the present study.

Data analyses

The structural validity of responses to the PWDS-T was investigated via confirmatory factor analysis (CFA). A combination of fit indices and their associated decision rules were used to evaluate data-model fit. Comparative fit index (CFI) values of .90-.95 as well as root mean square error of approximation (RMSEA) values and standardized root mean square residual (SRMR) values ranging .05-.08 were taken to indicate adequate data-model fit. CFI values $> .95$ as well as RMSEA and SRMR values $< .05$ were taken to indicate good data-model fit (Kenny, 2015; Kline, 2016). Latent construct reliability coefficients ($H \geq .70$), which are analogous to internal consistency coefficients derived at the factor level, were also considered desirable (Mueller & Hancock, 2008). After demonstrating that the PWDS-T yielded a sound measurement model, the concurrent validity of this measurement model was then explored by extending the preferred measurement model into a latent variable path analysis (LVPA) that predicted each of the theoretically relevant outcome variables: school support, peer support, family support, negative affect, and positive affect. The effect size of interest for the LVPA were multiple correlations (R^2), as these indicated the amount of variance accounted for in the predicted variables by the PWDS-T factors. Conventional decision rules were used to interpret the magnitude of R^2 coefficients: .01-.05 = small, .06-.13 = moderate, .14 = large (Cohen, 1988). All data analyses were conducted using Amos version 22.

Results

The baseline CFA was conducted using the maximum likelihood estimator and loaded all items onto their respective latent factors (i.e., wellbeing and distress), which were covaried, and included no additional parameter constraints. Findings from this initial measurement model indicated mixed data-model fit, with some

Table 2. CFA model fit statistics for the PWDS–T.

CFA	χ^2 (<i>df</i>)	CFI	SRMR	RMSEA [90% CI]
Model 1	197.096 (34)	.905	.067	.110 [.095, .125]
Model 2	91.045 (33)	.966	.054	.066 [.050, .083]
Model 3	75.447 (32)	.975	.052	.058 [.041, .076]

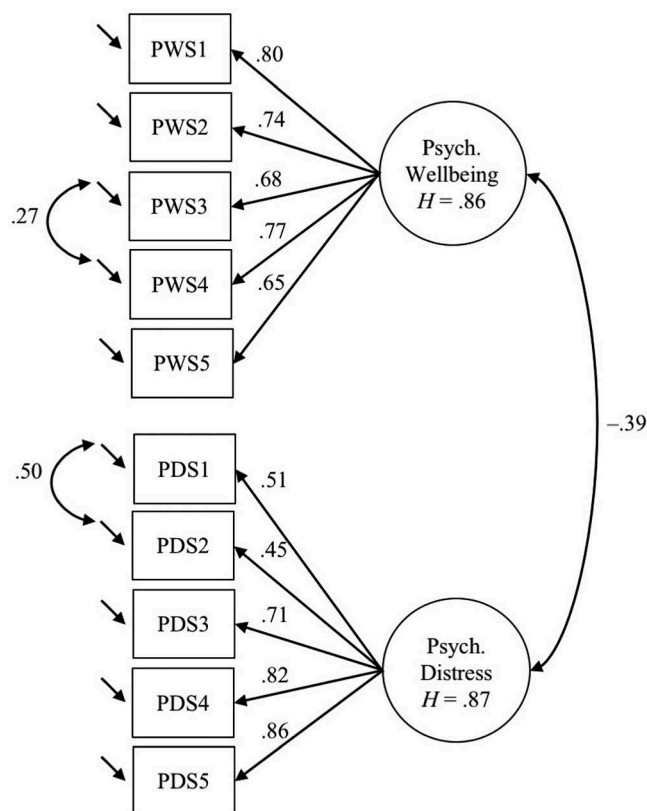
Note. All χ^2 values significant at the $p < .001$ level.

indices suggesting poor fit and others suggesting adequate fit (see Table 2). A process of respecifying the measurement model was therefore undertaken for the purposes of identifying particular parameters within the model that were contributing to suboptimal data–model fit (Kenny, 2011; Kline, 2016). Factor loadings and error variances were first evaluated and deemed to be acceptable, suggesting all items were relatively functional. The covariance between the two factors was also evaluated and deemed to be adequate ($\phi = -.42$), indicating a relation between the two latent variables that was both in the expected direction and characterized by an appropriate magnitude. Finally, modification indices were reviewed to identify potential covariance additions for sets of item errors. This review suggested that adding a covariance between the error terms for items PDS1 and PDS2 would substantially improve data–model fit. It is noteworthy that this particular covariance was also added to respecify the measurement model when testing the structural validity of the English version of the PWDS (Renshaw & Bolognino, 2017). Given these two items shared a different item stem and response scale than the other three items loaded onto the psychological distress factor, it was deemed appropriate to covary these error terms for the purposes of respecifying the model in the present situation. Results from this respecified measurement model (Model 2) showed much improved and good data–model fit across all indices (see Table 2).

Following respecification, modification indices were inspected for Model 2 to see if any further covariances between item error terms were both empirically and conceptually warranted to further optimize the measurement model. This review suggested that adding one additional covariance between the error terms for items PWS3 and PWS4 would further enhance data–model fit. The wording and content of these two items was evaluated and deemed to be more similar in nature than the content of the other three items that were loaded onto the wellbeing factor. Specifically, both PWS3 and PWS4 tapped feelings of wellbeing, while other items loading onto the wellbeing factor tapped aspects of adaptive wellbeing behavior within social contexts (see Table 1 for item content). The measurement model was therefore revised and rerun (Model 3) with CFA indicating further improved data–model fit

(see Table 2). Considering no additional parameter changes could be identified that were both empirically and conceptually warranted, Model 3 was taken as the preferred measurement model for the PWDS–T with the present sample. Other results from Model 3 indicated that factor loadings were strong for both factors, with λ ranging from .51–.86, and that latent construct reliability coefficients for both factors were strong ($H > .85$). A full structural presentation of the preferred measurement model (Model 3) and relevant psychometrics is presented in Figure 1.

After identifying the optimal measurement model for the PWDS–T, Model 3 was extended into an LVPA that predicted each of the concurrent validity measures. Findings from this analysis indicated that the PWS factor significantly predicted school support ($\beta = .54, p < .001$), family support ($\beta = .46, p < .001$), peer support ($\beta = .61, p < .001$), positive affect ($\beta = .77, p < .001$), and negative affect ($\beta = -.24, p < .001$). The PDS factor was observed to significantly predict family support ($\beta = -.18, p < .001$), positive affect ($\beta = -.17, p < .001$), and negative affect ($\beta = .68, p < .001$), but was a nonsignificant predictor of school support ($\beta = -.04, p > .05$) and peer support ($\beta = -.05, p > .05$). All standardized path coefficients were observed to be in the expected directions, and, taken together, the PWDS

**Figure 1.** Preferred measurement model for the PWDS–T.

measurement model predicted large proportions of the variance in all of the concurrent validity variables: school support $R^2 = .31$, family support $R^2 = .31$, peer support $R^2 = .35$, positive affect $R^2 = .75$, negative affect $R^2 = .64$.

Discussion

Although mental health has been shown to be consistently related to youths' educational and quality-of-life outcomes around the world (World Health Organization, 2014), at the time of this study there was no available evidence regarding the generalizability of the BMMH model to students in other nations, and, more specifically, no cultural adaptations of instruments available for researching the BMMH within school-based screening frameworks. Thus, the purpose of the present study was to investigate the psychometrics of a cultural adaptation of the PWDS with a sample of Turkish youth. Toward this end, a Turkish version of the PWDS was developed (PWDS-T) and tested to investigate the structural validity and concurrent validity of responses to the measure. We hypothesized that, similar to findings from the original PWDS development study (Renshaw & Bolognino, 2017), results would indicate that responses to the Turkish version of the measure would be characterized by a sound two-factor measurement model that predicted theoretically relevant concurrent outcomes. Findings generally provided positive support for our hypotheses, with some notable exceptions.

Results from the structural validity analyses indicated that responses to the PWDS-T can be characterized by a two-factor measurement model, assuming a similar latent structure as the English version. The only structural difference between the preferred measurement model in the present study and that established in the original PWDS development study (Renshaw & Bolognino, 2017) is the addition (in the present study) of a covariance between the item errors of PWS3 and PWS4 (see Figure 1). Although this additional covariance was warranted on both conceptual and empirical grounds, it is noteworthy that it was not necessary to reach good data-model fit. Indeed, model 2, which was essentially the same structure as that established in the original PWDS development study, demonstrated adequate fit—yet model 3 was preferred because it further optimized data-model fit (see Table 2). Ultimately, the addition of a single error covariance does not substantively change the interpretation of the factors between versions of the measure, and therefore it does not change the intended use of the measure in practice. The psychometric evidence regarding the structural validity of the PSWD-T obtained in the present study suggests that all 10 items are functional and

contribute to two factors that are characterized by strong internal consistency. The small negative covariance between these factors further suggests that intended interpretation of these factors—as representing psychological distress and psychological wellbeing, respectively—is consistent with a bidimensional approach to mental health. Thus, we suggest that our hypothesis regarding structural validity was supported. The upshot of this evidence is that researchers and practitioners using the PWDS-T can have confidence that the 10-items are appropriately designated into two subscales, which can be summed to create composite scores that represent two distinct-yet-related aspects of mental health.

Findings from the concurrent validity analyses indicated that responses to the PWDS-T were associated with several, but not all, of the theoretically relevant concurrent outcomes—and that these associations were somewhat differentiated across levels of the model. At the level of the overall measurement model, results indicated that wellbeing and distress factors, when taken together and covaried, accounted for very large proportions of the variance (ranging from 31–74%) in each concurrent outcome variable. This suggests that the operationalization of the BMMH via the PWDS is indeed related to valued intrapersonal (i.e., affective) and interpersonal (i.e., social support) variables. That said, differential predictive power was observed in the path coefficients stemming from both factors. Specifically, although both the PWS and PDS factors significantly predicted positive affect, negative affect, and school support, only the PWS factor was a significant predictor of family support and peer support. The null effects of the PDS factor for these latter variables seem inconsistent with previous research, which has demonstrated that psychological distress is negatively associated with several aspects of perceived social support (e.g., Rueger, Malecki, & Demaray, 2010). Yet it is noteworthy that previous research has assumed a unidimensional model of mental health and has therefore not included measures of wellbeing in conjunction with measures of psychopathology as co-predictors. Thus, it could be that the predictive power of psychological distress for these social support outcomes was subsumed by the variance it shared with psychological wellbeing in the current measurement model (see Figure 1). Although this explanation is admittedly tentative, it is supported by other findings within the BMMH literature showing that including wellbeing within continuous (as opposed to categorical) predictor models substantially lessens the variance explained in concurrent outcomes by psychopathology alone (Renshaw et al., 2016). We therefore conclude that our concurrent validity hypothesis was partially supported, and suggest that the associations observed between the PWDS factors and theoretically

relevant concurrent outcomes provide promising, but not unequivocal, evidence in favor of using the PWDS as a brief measure of youths' bidimensional mental health.

Despite these encouraging findings, the present study is limited in several regards. First, all of the theoretically relevant concurrent outcome measures were self-reported, suggesting the possibility of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Future research is thus warranted to expand the methodological repertoire of measures for investigating the concurrent validity of responses to the PWDS–T, focusing especially on indicators that are more germane to students' school functioning—such as associations with direct behavior ratings of classroom behavior (e.g., Kilgus, Riley-Tillman, Chafouleas, Christ, & Welsch, 2014) and congruence with scores derived from teacher-reported mental health screeners (e.g., Kilgus et al., 2016). Additionally, unlike the original development study of the PWDS conducted with the U.S. sample (Renshaw & Bolognino, 2017), the sample of Turkish youth in the present study was obtained via convenience methods and was not nationally representative. Thus, the results from the present study cannot be used to develop normative guidelines for scoring and interpreting the PWDS–T when used with Turkish youth more broadly. Generalization studies are therefore warranted with broader and more diverse samples to establish guidelines for normative scoring and interpretation. Lastly, given that the present study did not use scores derived from the PWDS–T to classify youth into mixed mental health statuses and then explore between-group differences, as has been done in previous research with U.S. samples (e.g., Suldo & Shaffer, 2008), it is unknown if responses to the Turkish version have similar classification utility. Future research is therefore also warranted to explore the validity of bidimensional mental health classification schemes derived from PWDS–T scores.

Considering these limitations, our ultimate conclusion is that the PWDS–T appears to be a psychometrically promising measure of Turkish youths' bidimensional mental health, but that additional research is necessary prior to recommending the measure for classifying youth for practical purposes. Although findings from the present study suggest that the PWDS–T could be used in practice to create composite scores that represent psychological distress and psychological wellbeing, respectively, they do not provide any evidence to interpretation of these composite scores according to normative conventions and classification determinations. Thus, until future research is accomplished that directly addresses these questions, we suggest the PWDS–T be adopted for use in school mental health research and practice with proper caution.

About the authors

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