Paz, J. L., & Kim, E. K. (2022). Cultivating Psychosocial Strengths and Well-Being. In K-A. Allen, M. J. Furlong, D. Vella-Broderick, & S. M. Suldo (Eds.), *Handbook of positive psychology in schools: Supporting process and practice* (pp. 38–55). Taylor & Francis.

# Handbook of Positive Psychology in Schools, Third Edition

# Chapter 4

# Covitality: Cultivating Psychosocial Strengths and Well-being

Jennica Lee Paz<sup>1</sup> and Eui Kyung Kim<sup>2</sup> <sup>1</sup>Department of Counseling and School Psychology, San Diego State University, San Diego, California, USA

<sup>2</sup>Graduate School of Education, University of California, Riverside, California, USA

#### Abstract

This revised chapter overviews recent advances in the Covitality framework, psychometric validation, and practical applications across national and international settings. The Covitality construct, a synergistic combination of 12 positive psychological mindsets or assets, has been translated into a robust measurement model, the Social Emotional Health Survey (SEHS). The SEHS system assesses complete mental health among students in primary grades through higher education settings. The SEHS measurement system can promote mental health prevention, intervention, and MTSS efforts in schools. It has robust international and national validity evidence for use in schools as a strengths-based measure. Explicitly, this chapter incorporates the following: (a) a review of theoretical foundations, (b) a Covitality system and measurement model, (c) a summary of advances in national and international Covitality psychometric research, and (d) school-based applications. The chapter concludes with a discussion related to considerations of diversity and development. It addresses questions about how the SEHS assesses and enhances all students' well-being and success.

Keywords: Covitality, positive psychology, well-being, students, strengths-based assessment

## **Review of Theoretical Foundations**

#### **Conceptualizations of Student Wellness**

Educators' duty to enhance student's capacity to thrive is imperative as they face a world with moral and sociopolitical upheavals, publicized school shootings, a global pandemic, and unapologetic activism calling to mobilize minoritized voices. School systems serve as a critical protective factor for youth. They offer a sense of safety in which to learn, provide opportunities for meaningful social-emotional development, and help youth become productive global citizens in the future. School ecosystems have an ethical and legal duty to promote educational success and ensure student well-being. To adequately foster the social-emotional development of their students, educational agencies need reliable tools and methods for prevention and intervention systems to promote students' complete mental wellness. Conceptualized as "not merely the absence of psychopathology, but also the presence of sufficient levels of emotional, psychological, and social well-being [flourishing]" (Keyes & Michalec, 2010, p. 126), complete mental wellness assessment involves the measurement of two distinct continua among the population. The public health field advocates assessing mental health from a multidimensional framework, aligning well with population-based frameworks of school-based mental health screenings (Dowdy et al., 2010). Positive psychological researchers continue to advance the paradigm shift by highlighting the need to refine mental wellness classification. One such effort is the Dual Factor Model (DFM), which integrates adaptive and maladaptive dimensions to assist with the early identification of psychological and behavioral challenges (Greenspoon & Saklofske, 2001; Keyes, 2003; Suldo & Shaffer, 2008).

Specifically, the potential benefits of simultaneously considering the integrative effects of distress and personal strengths have been proposed to understand student wellness better (Kim et al., 2019; Moore et al., 2019a; Smith et al., 2020). These holistic approaches assess core, combinatorial strengths associated with positive psychosocial development rather than isolated constructs (e.g., hope or gratitude; Lenzi et al., 2015). Holistic assessment practices, such as DFM (Greenspoon & Saklofske, 2001) and two-continua (Westerhof & Keyes, 2010) models, place positive (e.g., psychosocial strengths) and negative (e.g., psychosocial distress) mental wellness indicators on distinct yet interrelated continua. Attending to positive and negative indicators of mental wellness shows additive value in predicting students' attendance and

academic achievement over time (Dougherty & Sharkey, 2017; Suldo et al., 2011).

We propose that indicators of psychosocial distress and strengths be considered in combination, aligned with a whole-child paradigm (Alford & White, 2015) when attending to student wellness. Inspecting both continua simultaneously unveils comprehensive psychosocial strengths. It provides a more thorough depiction of important Quality of Life (QOL) indicators (e.g., positive life functioning, psychological well-being, mental well-being, and life satisfaction) among students. Expanding upon and complimenting mental health assessment approaches, which traditionally focus on identifying student problems and deficits, strengths-based assessments highlight the importance of internal assets, strengths, and mindsets involved in thriving developmental trajectories (Nickerson, 2007). Several seminal Positive Youth Development (PYD; Bowers et al., 2010) and Cumulative Risk and Resilience scholars (Benson et al., 2011; Leffert et al., 1998; Scales, 1999) have paved the way for this contemporary wave of positive psychological assessment research.

Though beyond the scope of this chapter, some exemplars include:

- 1. Five Cs Framework of Positive Development (Lerner et al., 2005),
- Search Institute's 40 Developmental Assets Framework (Benson, Scales, & Syvertsen, 2011),
- 3. Kern et al.'s (2016) Engagement, Perseverance, Optimism, Connectedness, and Happiness (EPOCH) framework, which is rooted in Seligman's (2011) Positive emotions, Engagement, Relationships, Meaning and purpose, and Accomplishment (PERMA) model (*see Chapter 2 in this handbook for recent advancements*), and
- 4. Furlong et al.'s (2014) Covitality framework.

The PYD perspective emphasizes creating conditions that empower youth to make things happen proactively. Rooted in prevention science, these best practice models of integrative, cumulative strengths-based assessments are helpful to incorporate within DFM or complete mental health screenings, especially among culturally and linguistically diverse students globally. Significantly, these models predict increased school achievement and positive quality-of-life outcomes for youth (Paz et al., 2020; Scales, 1999).

Previous DFM studies used various single-construct (e.g., multidimensional student life satisfaction) and multifaceted tools (e.g., Social-Emotional Health Survey [SEHS]) paired with broadband distress measures (e.g., Behavioral Assessment System for Children [BASC]).

Several approaches to date (e.g., use of cut-scores for high and low ratings vs. latent profile analyses) have examined how to efficiently and practically cross-tabulate wellness and distress scores to identify profiles of complete mental health functioning in youth (Moore et al., 2019a; Smith et al., 2020).

### Advances in Covitality Theoretical Framework

There are continuous efforts to validate practices that can be integrated into multi-tiered systems of support and promote "psychologically healthy educational environments for [all] children" (Huebner et al., 2009, p. 565). The current wave of positive psychological research has continued investigating multi-asset measures (Furlong et al., 2013, 2014) and interventions (Suldo, 2016). As with several of the positive psychological assessment and intervention models reviewed elsewhere in this handbook, advances have been made to the Covitality construct (Furlong et al., 2014; Renshaw et al., 2014) and applications, which have been supported through practice informed by refined research.

Originally conceptualized as a counterpart to comorbidity, Furlong and colleagues (2014) hypothesized youth psychosocial strengths as linked to a higher-order trait called Covitality, defined as "the synergistic effect of positive mental health resulting from the interplay among multiple positive psychological building blocks" (Furlong et al., 2013, p. 3). The Covitality psychosocial strengths matter more than any individual strength when considering the quality of life among youth<sup>1</sup>. This model's conceptual underpinnings are in social psychology (e.g., Lips, 1995), self-concept theory (Chi-Hung, 2005), and cognitive therapy (e.g., Dozois et al., 2012; Young et al., 2003) research. The framework posits a developmental process from childhood through adolescence and beyond in which a person forms, sustains, nurtures, and enhances cognitive schemas that organize life experiences and give them meaning. Thus, this original cognitive-based framework understands adolescents as actively constructing worldviews of who they are and arriving at conclusions about their fit within their social ecosystems. Shifting from a

<sup>&</sup>lt;sup>1</sup> While the Covitality framework uses 12 positive constructs in combination, the authors recognize the great value of assessing other isolated personal emotional strengths (e.g., courage, self-compassion, hope, etc.). The Covitality framework aims to identify exemplary strengths and highlights the idea that when these 12 psychosocial strengths develop in harmony and synergy, the outcome is reflective of overall well-being. Other positive psychological strengths can also be a part of fostering any individual's complete mental health, and the continued interest and importance of investigating other personal strength-based constructs are highly beneficial in SBA approaches.

focus on understanding maladaptive self-schemata (i.e., "cognitive generalizations about the self, derived from experience, that organize and guide the processing of self-related information contained in the individual's social experiences"; Markus, 1977, p. 64), the 12 mindsets embedded in the Covitality model focus on adaptive self-schemas associated with resilience and their relation to adaptive and thriving developmental outcomes. For a review of operational definitions for each of the 12 positive psychological assets, see Table 2.1 in Renshaw et al., 2014.

A transactional development lens recently described Covitality conceptual framework refinements (Furlong, Nylund-Gibson, et al., 2020a). Developing core psychosocial strengths (e.g., gratitude, empathy, and persistence) promotes positive interpersonal transactions within a child's socio-ecological system, contributing to better developmental outcomes. Youth are understood to be thriving and flourishing when developing these cumulative psychosocial strengths that promote positive, supportive everyday interactions with individuals (e.g., family, teachers, and peers) within their immediate microsystem. When emphasizing these critical positive psychological dispositions in schools, educators support students' ability to engage meaningfully in "interpersonal transactions that facilitate their near- and long-term development across their bio-psycho-social developmental domains" (Furlong, Furlong, Nylund-Gibson, et al., 2020a, p. 6). Further, the odds of students achieving positive developmental outcomes increase when they have internal dispositions and skills to proactively influence the quality of their daily interpersonal interactions.

The Covitality framework has been translated into a robust measurement system, the Social-Emotional Health Survey (SEHS), described in the next section of this chapter. The SEHS is a social-emotional health model that empirically measures social and emotional skills and psychological dispositions associated with positive youth development. Further, the SEHS system has been widely applied in DFM and complete mental health screening approaches with a Multi-tiered Systems of Support (MTSS) framework.

## Covitality Measurement Model: The Social Emotional-Health Survey System

As a measurement model, the Social Emotional Health Survey (SEHS) Survey System comprises structured surveys that operationalize and measure Covitality and offers a method for assessing complete mental health among primary school through higher education students. There are three self-report versions of the SEHS: Primary (SEHS-P; Furlong et al., 2013) for students ages 9-12, Secondary (SEHS-S; Furlong, You et al., 2014) for students ages 13-18, and Higher Education (SEHS-HE; Furlong et al., 2017) for college students. Given this chapter's focus, it reviews school-aged students, the SEHS primary (SEHS-P; Furlong et al., 2013), and secondary versions (SEHS-S; Furlong et al., 2014). Recently, psychometric refinements were made to the SEHS-S, and there is an available SEHS-S 2020 version (Furlong, Dowdy, et al., 2020). Refer to the Project Covitality website for administration and interpretive information (https://www.covitalityucsb.info/sehs-measures/index.html).

The Social Emotional Health Survey–Primary (SEHS-P; previously known as Positive Experience at School Survey [PEASS]) was developed as a self-report behavior rating scale to measure school-specific well-being among primary school students in Grades 4-5. The SEHS-P has four subscales: Gratitude (e.g., *I am lucky to go to my school*); Zest (e.g., *I wake up in the morning excited to go to school*); Optimism (e.g., *When I have problems at school, I know they will get better in the future*); and Persistence (e.g., *When I get a bad grade, I try even harder the next time*). The PEASS had 20 items hypothesized to measure these four subscales above (5 items for each subscale). The SEHS-P (Furlong et al., 2013) has 16 items (4 items for each subscale), and its four subscales load onto a higher-order latent trait, *Covitality*, and fifth Prosocial Behavior subscale, which is not calculated in the overall total Covitality score.

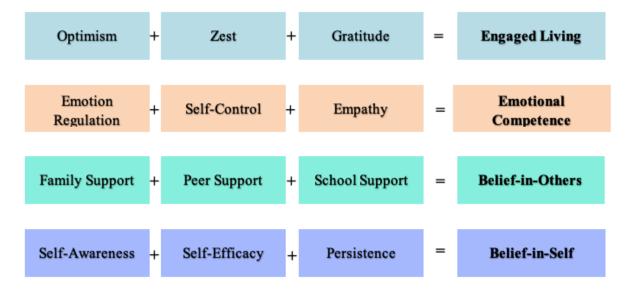
The SEHS-Secondary (SEHS-S) is a 36-item measure that assesses 12 psychosocial strengths derived from the social emotional learning (SEL) and positive youth development (PYD) literature (e.g., Bandura et al., 1996; Furlong et al., 2014; Masten et al., 2009; Zins, Bloodworth et al., 2007). These 12 psychosocial strengths are associated with four second-order positive social-emotional constructs:

- (a) *Belief-in-self* (self-awareness, self-efficacy, persistence);
- (b) *Belief-in-others* (family coherence, peer support, school support);
- (c) Emotional competence (emotion regulation, self-control, empathy); and
- (d) Engaged living (optimism, zest, gratitude).

These four domains load onto a higher-order latent trait, *Covitality* (see Figure 4.1 for an illustration of conceptual to-measurement mapping for the SEHS). The SEHS survey system continually evolves to reflect valid and parsimonious psychometric properties, sensitivity to developmental considerations, and affirming cultural and demographic qualities. While the

#### Figure 4.1

Covitality Conceptual Framework and Social Emotional Health Survey Measurement Model



conceptual model has remained the same, in the latest SEHS-S 2020 version, adaptations and refinements were implemented to present items more developmentally appropriate (Furlong, Dowdy, et al., 2020). For example, a change reflected in the SEHS-S 2020 version includes items reframed as questions rather than statements to make items more accessible for students to respond to.

Recognizing the importance of internal strengths for youth quality of life, school psychology scholars have adapted the SEHS within their countries to identify students' psychosocial strengths and their relations with various school-specific outcomes. For example, the SEHS-S is administered to U.S. middle and high school students (Carnazzo et al., 2019; Dougherty & Sharkey, 2017), Australia (Boman et al., 2017), South Korea (Kim et al., 2019; Lee et al., 2016), Japan (Ito et al., 2015), and Turkey (Telef & Furlong, 2017). The SEHS identified positive psychological factors associated with improved academic achievement (Dougherty & Sharkey, 2017) and school connectedness (Kim et al., 2019) and reduced behavioral concerns such as truancy (Wroblewski et al., 2019). These results suggest that the SEHS measurement system can inform and promote mental health prevention, intervention, and/or MTSS efforts within schools across the globe.

#### Advances in National and International Covitality Psychometric Research

The SEHS system has strong national and international validity for its use within schools as a strengths-based assessment tool. Table 4.1 summarizes relevant national and international studies examining the SEHS-P and SEHS-S psychometric properties. Psychometric results of the SEHS-P supported its validity, internal consistency, and invariance across sociocultural and gender groups. Specifically, there are SEHS-P validation studies from Australia (Wilkins et al., 2015), China (Liu et al., 2016; Wang et al., 2018; Xie et al., 2018), South Korea (Kim et al., 2019), Spain (Pineda et al., 2017), Turkey (Telef, 2016), and the U.S. (Renshaw, 2017). The SEHS-P Covitality score positively correlated with the Psychological Sense of School Membership (PSSM) Acceptance and Caring Relationship subscales. It was negatively related to the PSSM Rejection subscale (Furlong et al., 2013). Furthermore, it was positively correlated with school engagement, prosocial behavior, and final exams six months later (Wang et al., 2018; Wilkins et al., 2015). However, it was negatively associated with depressive symptoms, bullying victimization, and bullying perpetration (Wang et al., 2018). Recently, the SEHS-P was adapted by Wang et al.'s (2018) study that modified the items into questions rather than statements to increase the understanding and engagement of primary school students. The adapted version of the SEHS-P has also been applied in schools across countries including the U.S., China, England, and Japan (e.g., Castro et al., 2019; Chan et al., 2019; Iida et al., 2020; Moffa et al., 2019). Internal reliabilities of Covitality and domain scores were in acceptable and excellent ranges (.60-.97) and associated with emotional and behavioral difficulties, school membership, and satisfaction with classroom life.

## COVITALITY AND WELL-BEING

## Table 4.1

Summary of Key Social Emotional Health Survey-Primary (SEHS-P) and Social Emotional Health Survey-Secondary (SEHS-S) Psychometric Studies

Study	Grade	Gender	Sample		Reliability <sup>a</sup>		Validity <sup>b</sup>
SEHS-P							
Furlong et al.	4-6	52% F	USA		Gratitude	.70	Structural: Acceptable fit second-order model,
(2013)		48% M	Latin Amer.	78%	Zest	.75	invariance gender
			White Amer.	16%	Optimism	.66	Convergence: Prosocial behavior (male .65, female
N=1,995			Other	5%	Persistence	.76	.64), PSSM Acceptance (male .55, female .48), Caring
					Covitality	.88	Relationships (male .59, female .39), Rejection (male .34, female27)
Wilkins (2017)	Ages 8-	59% F	Australian	100%	Gratitude	.69	Convergent: School engagement (.69), Prosocial
	12	41% M			Zest	.61	behavior (.64)
N=112					Optimism	.68	
					Persistence	.76	
					Covitality	.88	
Wang et al.	4-6	51% F	China	100%	Gratitude	.84	Structural: Acceptable fit second-order model,
(2018)		49% M			Zest	.82	invariance gender
					Optimism	.80	Convergent: Prosocial behavior (.65), depressive
<i>N</i> =662					Persistence	.83	symptoms (32), victimization (15~18),
					Covitality	.93	perpetration (25), final exams six months later (.13~.18)
Wagle et al.	Ages 8-	46% F	USA	32%	Gratitude	.68~.69	Convergent: School membership (.51~.62)
(2018)	13	54% M	China	47%			
N=2,482			UK	21%			
Chan et al. 2019)	Ages 9-	46% F	China	57%	Scales (China)	.60~.76	Convergent: School membership in the USA sample
	11	54% M	USA	43%	Scales (USA)	.65~.85	(.19~.72) and the Chinese sample (.34~.57).
<i>N</i> = 1,756					Covi (China)	.85	
					Covi (USA)	.89	
Castro et al.	Ages 8-	51% F	UK	100%	Gratitude	.70	
(2019)	11	49% M			Optimism	.69	
N = 522					Zest	.64	
					Persistence	.60	
Moffa et al.	Ages 8-	54% F	USA	59%	Gratitude	.70	Structural: Acceptable fit second-order model,
(2019)	12	46% M	UK	41%	Zest	.78	invariance gender
N = 1,322					Optimism	.77	<i>Convergent</i> : Emotional and behavioral Difficulties (.10~.27)
Iida et al. (2020)	4-6	49% F	Japan	100%	Gratitude	.83	Structural: Acceptable fit second-order model,
N=955		51% M	*		Optimism	.84	invariance gender and grade
					Zest	.91	Convergent: Emotional difficulties in M&MS (32~-
					Persistence	.88	.47), behavioral difficulties (20~27), QU Security
					Covitality	.95	(22~42), QU Approval (.32~.41)
					2-wk test-retest	.70~.77	

SEHS-S—2015							
Furlong et al.	8,10,	50% F	USA		Belief in Self	n/a	Structural: Acceptable fit second-order model,
(2014)	12	50% M	Latin Amer.	72%	Belief in Others	n/a	invariance gender
					Emotion Comp.	n/a	Convergence: SWB (.89), Academic (.08), School
<i>N</i> =4,189					Engaged Living	n/a	Safety (.12)
					Covitality	.92	
You et al. (2014)	9-12	47% F	USA		Belief in Self	.76	Structural: Acceptable fit second-order model,
		53% M	Latin Amer.	72%	Belief in Others	.81	invariance gender and age.
<i>N</i> =2,240					Emotion Comp.	.78	Convergent: BESS (63)
					Engaged Living	.87	
					Covitality	.91	
Kim et al. (2014)	10	56% F	USA		Belief in Self	n/a	<i>Structural</i> : n/a
. /		44% M	Other	50%	Belief in Others	n/a	Convergent: SWB (.57)
N=118			European Amer.	24%	Emotion Comp.	n/a	Č Č
			Latin Amer.	12%	Engaged Living	n/a	
					Covitality	.90	
You et al.	9-12	51% F	USA		Belief in Self	n/a	Structural: Acceptable fit second-order model,
(2015)		49% M	Latin Amer.	51%	Belief in Others	n/a	invariance gender and race/ethnicity
			White Amer.	17%	Emotion Comp.	n/a	e ,
<i>N</i> =14,171			African Amer.	7%	Engaged Living	n/a	
			Asian Amer.	8%	Covitality	.95	
Ito et al. (2015)	7-9	52% F	Japan	100%	Belief in Self	.78	Structural: Acceptable fit second-order model,
		48% M	1		Belief in Others	.87	invariance gender
<i>N</i> =975					Emotion Comp.	.82	č
11 210					Engaged Living	.88	
					Covitality	.93	
Lee et al. (2016)	7-12	56% F	Korea	100%	Belief in Self	.84	Structural: Acceptable fit second-order model,
		44% M			Belief in Others	.85	invariance gender
<i>N</i> =686					Emotion Comp.	.82	Convergent: SWB (.56)
					Engaged Living	.88	
					Covitality	.94	
Telef & Furlong	9-12	55% F	Turkey	50%	Belief in Self	.76	Structural: Latent mean differences on belief-in-self
(2017)		45% M	USA	50%	Belief in Others	.77	domain (ES = $.16$ )
					Emotion Comp.	.74	Convergent: SWB (.66)
<i>N</i> =2,242					Engaged Living	.80	
					Covitality	.89	
Xie et al. (2018)	7-12	52% F	China	100%	Belief in Self	.77	Structural: Acceptable fit second-order model,
	, . <b>_</b>	48% M		100/0	Belief in Others	.81	invariance gender and grade
<i>N</i> =3,750					Emotion Com.	.80	Convergent: LS (.46), PANAS-P (.46), DASS-D (-
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Engaged Living	.88	.36), DASS-A (25), DASS-S (22)
					Covitality	.92	, 51100 11 ( .20), 51100 0 ( .22)
					covitanty	.89	
Piqueras et al.	Ages	42% F	Spain	100%	Belief in Self	.82~.88	Structural: Adequate fit second-order model,

(2019)	12-18	58% M			Belief in Others Emotion Com.	.77~.89 .80~.86	invariance gender
N=1,042					Emotion Com. Engaged Living	.80~.80 .89~.92	
IV-1,042					Covitality	.89~.92	
SEHS-S-2020							
Furlong et al.			USA		Belief in Self	.88	Structural: Excellent fit second-order model,
(2020)			Latin Amer.		Belief in Others	.87	invariance gender, grade, Latinx status, and ethnic
*Three samples			White Amer.		Emotion Com.	.87	group
( <i>Ns</i> =72,740,			African Amer. Asian		Engaged Living	.94	Convergent: distress (41), school connectedness
10,757, 707)			Amer.		Covitality	.95	(.52), self-report grades (.25), cigarette use (10),
were used. Refer					1-yr test-retest	.59~.68	vaping (10), binge drinking (10), marijuana use (
to the manuscript							.17), and suicidal ideation (34)
for further							
information on							
the samples.							
Hinton et al.	7-12		USA		Belief in Self	.77	Structural: Acceptable fit second-order model,
(2020)			Latinx	100%	Belief in Others	.81	invariance language
					Emotion Com.	.80	
N=1,404					Engaged Living	.88	
					Covitality	.92	
Wagle et al.	9-12	46% M	USA		Belief in Self	.77	Structural: Acceptable fit second-order model,
(2020)		52% F	Latin Amer.	45%	Belief in Others	.81	invariance self-reported vs. anonymous response
		2% Other	White Amer.	40%	Emotion Com.	.80	format
N=3,367			African Amer. Asian	1%	Engaged Living	.88	
			Amer.	3%	Covitality	.92	
			Native Amer.	1%	-		
			Pacific Islander	1%			

<sup>a</sup> All reliabilities are alpha coefficients unless otherwise indicated.
 <sup>b</sup> All validity coefficients are Pearson correlation coefficients or structural equation model path coefficients.

<sup>c</sup> Covitality scores are the sum of all SEHS-S and SEHS-P items.

Note. BESS = Behavioral and Emotional Screening Scale; DASS-D = Depression Anxiety and Stress 21-Depression; DASS-A = Depression Anxiety and Stress 21- Anxiety;

DASS-S = Depression Anxiety and Stress 21- Stress; Emotion Comp. = Emotional Competence domain; PSSM-A = Psychological Sense of School Membership-Acceptance;

PANAS-P = Positive and Negative Affect Scale-Positive; PANAS-N = Positive and Negative Affect Scale-Negative; PSSM-R = Psychological Sense of School Membership-

Rejection; SEHS = Social Emotional Health Survey, Covitality = SEHS-S and SEHS-P total score; SWB = subjective well-being.

Similarly, an increasing number of studies provide evidence for the psychometric properties of the SEHS-S, including reliability and validity of the higher-order model, internal consistency, construct and predictive validity, and invariance across sociocultural and gender groups. Full measurement invariance has also been recently established for both anonymous (i.e., surveillance) and self-identified (i.e., screening) versions of the SEHS-S 2020 (Wagle et al., 2020). SEHS-S validation studies were conducted in Japan (Ito et al., 2015), South Korea (Lee et al., 2016), Spain (Piqueras et al., 2019), Turkey (Telef & Furlong, 2017), and the U.S. (You, Dowdy et al., 2015; You, Furlong et al., 2015). More recently, Hinton and colleagues (2020) examined the SEHS-S with Latinx youth in the U.S. to reflect its validity and reliability with more diverse subgroup youth populations. The SEHS-S total Covitality index has evidence of convergent validity with measures of youth global psychosocial strengths. For example, the Covitality score had a significant positive relation with the Strengths and Difficulties Questionnaire's (SDQ; Goodman, 1997) prosocial behavior subscale and a negative relation with the SDQ total difficulties scale among Turkish youths (Telef & Furlong, 2017). Significant positive correlations have also been found with other quality of life outcomes, such as subjective well-being among Korean youth (Kim et al., 2019; Lee et al., 2016) and depression, anxiety, and stress in Chinese youth (Xie et al., 2018).

The U.S. Department of Education Institute of Education Sciences (IES) funded Project Covitality, a four-year grant to enhance and standardize the SEHS-S. In particular, the preliminary SEHS-S version (Furlong et al., 2013) lacked psychometric evidence and normative characteristics derived from large samples. Thus, Furlong, Dowdy, et al. (2020) aimed to refine and standardize its content and build evidence supporting its psychometric properties using substantial samples of California high school students. Furthermore, the researchers attempted to standardize the response format of the SEHS-S to enhance the standardized application across various contexts. Specifically, structural validity analyses using 72,740 students' responses supported an excellent model fit for the second-order factor structure and measurement invariance across gender, grade, Latinx status, and ethnic group identification. Internal consistencies of the SEHS-S-2020 Covitality score and domain scores were excellent, ranging from .87-.95. Criterion validity analyses were then conducted using 11,217 students' responses and indicated that Covitality predicted student distress, school connectedness, self-report grades, cigarette use, vaping, binge drinking, marijuana use, and suicidal ideation, supporting the measure's convergent validity. Lastly, stability analysis conducted using a sample of 707 students reported the one-year test-retest stability coefficients of .48 to .68, which indicate stable, trait-like positive psychological orientations. Another recent study with a sample of 3,367 California high school students found that the SEHS-S-2020 measures the same construct across self-identified and anonymous groups (Wagle et al., 2020). Furthermore, Hinton et al. (2020) found that the factor structure was invariant across language (Hispanic vs. English-speaking) groups among Latinx youths.

Another goal of Project Covitality included providing updated information on the stability of complete mental health across time and its ability to predict a wide range of educational and psychosocial outcomes. Moore et al. (2019b) examined the stability of the four mental health classes identified by using the SEHS-S-2013 and the SDQ: complete mental health ("high well-being and low distress"), moderately mentally healthy ("high-average well-being and low distress"), symptomatic but content ("average to high-average well-being and average to above-average distress), and *troubled (*"average to low-average well-being and above-average distress"; Moore et al., 2019b, p. 64). It was found that the *complete mental health* class exhibited the most stability, followed by moderately mentally healthy and symptomatic but content classes, while the troubled class exhibited the least stability. Only less than 24% of participants remained in the same mental health class across the high school, and few students remained in the complete mental health class each year. These results suggested that mental health screening once during the high school period would be insufficient. School professionals should engage in regular (i.e., annual or biannual) and systematic monitoring of students' complete mental health to accurately provide MTSS supports and interventions that appropriately match individual students' present social-emotional functioning levels.

### **Applications Among Diverse School Systems**

In addition to understanding the theoretical underpinnings and psychometric support for the Covitality construct and SEHS measurement system, practitioners and researchers need to understand how this comprehensive strength-based model can be applied in school-based practice. From a public health approach to assessment (Dowdy et al., 2010), information obtained from the SEHS may be used in an MTSS framework to assess and monitor the psychosocial strengths of individual students or an entire population, to identify students at risk who require more tier II or III levels of support to prevent further risk by cultivating their strengths (Furlong et al., 2019). At the universal or tier I level, wellness surveillance data can help school-based practitioners direct resources appropriately for students within individual schools or entire school systems (e.g., districts, Special Education Local Planning Areas). For example, surveillance data for an eleventh-grade cohort of females might reveal low ratings on the belief-in self domain, suggesting that targeted interventions to increase self-efficacy, self-awareness, and persistence among these students would be warranted.

Traditional approaches to school-wide mental health screenings employ screeners designed to assess risk factors or clinical symptoms (e.g., BASC, BESS, SEDS, CHKS), which identify no more than approximately 20% of students in need of mental health support. Thus, further refinement of approaches to identify the smaller groups of needful or students with troubles, is warranted, and the SEHS as a component in a DFM to mental health assessment is one suggestion to remedy this problem while providing relevant feedback for all students. In this approach, a screener that assesses positive aspects of youths' psychological development helps complement the traditional distress-focused screening process. High and low SEHS scores provide meaningful information-all students, regardless of their level of impairment or risk, have strengths that should be fostered to promote optimal developmental outcomes. Schoolbased stakeholders can use the data obtained from the SEHS in conjunction with traditional mental health screening data to gain a more comprehensive understanding of youths' complete mental health profile, which, in turn, may help school teams provide more targeted services aimed at improving the academic performance and other QOL outcomes for all students. For a detailed description of how to conduct universal complete mental health screening within a school system utilizing the SEHS, please see Moore et al. (2016) for a complete step-by-step implementation guide with specific guidelines for practitioners seeking to implement complete mental health screening.

To better understand SEHS applications, the following sections of this chapter provide examples of its use within an MTSS framework: (a) Tier I complete mental health screening, and (b) Tier II and III individual applications.

Tier I School-Wide Complete Mental Health Screening Examples

To date, there are several examples of national and international school-wide applications utilizing the SEHS to gather data on complete mental health among students (e.g., Lee & Ahn,

2018; Dowdy et al., 2015; Fullchange & Furlong, 2016; Moore, Mayworm et al., 2019; Wagle et al., 2020). To illustrate, two brief overviews from recent applications of the SEHS-S across two unique school-based contexts, one in the United States and the other in Spain are summarized (see Paz et al. 2020 for more detailed descriptions). These selected case examples demonstrate how strength-based assessments may be integrated within school-based service delivery models to improve data-based decision-making and effectively plan for delivering related positive psychological interventions.

### Example 1: Local Education Agency in Southern California

In 2017, a unified school district in Southern California launched an MTSS to address student behavioral and mental health concerns and improve psychosocial strengths. The educational agency had an enrollment of over 13,000 students across 20 diverse schools. The district's mental health framework centered around three goals:

- 1. Tier I universal services and supports to build a positive school climate and promote students' well-being and psychosocial resilience;
- 2. Tier II targeted selected and brief evidenced-based support for approximately 15% of students displaying or at risk of mild mental health challenges and
- Tier III intensive, ongoing strategies to support targeted students (approximately 5%) in need of significant coping mechanisms, functioning, and recovery needs, including referrals for school-based mental health providers.

Beginning in the 2018-2019 academic year, parents provided consent for students in Grades 7, 9, and 10 (N = 2,912). At the Tier I screening level, all students completed a secure online social-emotional screening assessment comprising the SEHS-S, the Student Emotional Distress Scale (SEDS; Dowdy et al., 2018), and brief measures of life satisfaction and school belonging. The SEHS-S and the SEDS were used to obtain students' psychosocial wellness from a complete mental health model synthesizing distress indicators and strengths. A total of 14 school and community-based team professionals (i.e., school counselors, school psychologists, and community mental health therapists) supported the administration of the complete mental health screening. It monitored the needs of students who participated in the screening. Students with high distress ratings on the SEDS and low levels on the SEHS-S (highest and lowest 15% from each measure) were identified for Tier II school support services. The percentage of

students identified for Tier II services ranged from 3% to 10% across the eight secondary schools in the school district. For the students who displayed elevated risk profiles (e.g., highest and lowest 3-5%, respectively, across the dual-factor measures), a follow-up structured interview occurred within a few days of the screening. School-based administrators and professionals conducted interviews to document areas of concern and discuss available resources (at the tier III level) and barriers. Following the initial screening efforts, several debriefing meetings were held with school team members, district office administrators, and leadership teams to discuss successes and challenges and create timelines for achieving tiered mental health support goals based on a school wellness action plan. School-community and mental health organizations collaborated on developing and implementing parent workshops and Tier 2 student support groups.

## Case Example 2: Diverse School Ecosystem in Spain

In an ongoing international collaboration with scholars in Spain beginning in 2016, the Covitality-Spain team began implementing strengths-based psychological assessment practices across children, adolescents, and university students to inform detection, identification, and early intervention for mental health. The Covitality team administered school-wide screening measures (i.e., distress and strength variables) to students online to gather complete mental health surveillance data and collect additional psychometric evidence for using the SEHS-S with Spanish students.

The initial screening consisted of 1,042 adolescents, and results indicated that the total Covitality index was negatively associated with internalizing and externalizing symptoms and peer and parent relationship challenges. Further, data from this implementation revealed solid and positive associations with the measures of positive covariates (i.e., well-being, health-related quality of life, and prosocial behaviors). Subsequent longitudinal studies with 5,172 high school students specifically explored patterns between well-being, health-related quality of life, psychopathology/distress, and relationships with parents. Data from these longitudinal analyses indicated that social-emotional competencies predicted psychosocial adjustment and mediated the influence of stressful events on psychosocial adjustment. The Covitality-Spain team also utilized SEHS-S data to create customized reports to illustrate feedback regarding groups of adolescents and specific individuals who presented with increased risk for suicide or low mental

health. Together, the comprehensive assessment of Spanish students' strengths and distress supported the validity of the SEHS-S with the population and its use to inform prevention and intervention services for all students.

#### Individual Assessments at Tier II and Tier III

In addition to serving as a school-wide or district-wide surveillance screener, the SEHS is administered to assess a student's present levels of psychosocial functioning as part of a comprehensive evaluation for determining the student's eligibility for special education services. Scholars have long identified increased benefits when including strengths-based questionnaires within psychoeducational evaluations as this not only provides a broader perspective on students' functioning but also may yield increased satisfaction with the testing process and intervention supported (Cox, 2006; Epstein et al., 2001; Walrath et al., 2004).

Further research is still needed to determine the relative sensitivity of the SEHS concerning sensitivity and specificity (e.g., progress monitoring) to changes in response to interventions. Given the brevity of this measure, it would also serve as a helpful progress-monitoring tool to evaluate the effects of mental health interventions. The SEHS can also serve clinical utility within group counseling interventions designed to increase students' psychosocial assets and gather data regarding intervention effectiveness. Notably, the SEHS has been implemented successfully within populations of students receiving special education services due to underlying learning disabilities, suggesting that this measure can be reliable for students receiving general or special education educational programming (Carnazzo et al., 2019). Whether population-based screening efforts or individual assessments and progress monitoring for evaluation of interventions, the SEHS may be an effective system to include at varying tiers within a comprehensive service delivery model. See Figure 4.2 for an infographic summarizing steps for implementing mental wellness surveillance or screening measures.

#### Figure 4.2

#### UNIVERSITY OF CALIFORNIA SANTA BARBARA

Center for School-Based Youth Development STEPS FOR MENTAL WELLNESS SCREENING

#### Make student flourishing well-being a priority





2

3

A

5

#### PARTICIPANTS AND PLAN

Before the screening, a Coordination of Student Services Team (COST), comprised of the school psychologist, administrators, teachers, psychiatric social worker, and university partners, meet to delineate the necessary materials and resources needed to move forward with universal screening.

SELECT SCREENING TOOL

Consistent with complete mental health screening, the COST team gets informed about symptoms of psychological risk and social-emotional strengths. The selected measure complements the school's student wellness objectives. Guide: Universal Social. Emotional, and Behavioral Screening for Monitoring and Early Intervention

#### CONSENT

After discussing the benefits and consequences of passive and active consent, the COST team decides which type of consent would be optimal in order to screen the largest number of students possible.

#### ADMINISTER THE SCREENER

Carefully consider how to most efficiently present the survey to the students. The procedures used are influenced by available resources. However, given the efficiency of online administration, scoring, and report generation, it will be most effective and cost efficient over time.

#### **FOLLOW-UP**

Infographics are visual representations of data, making complex info easier to share and digest. When making your own, simply organize your images, charts, and text. Finally, cite your sources. Infographic examples: <u>Safety and Wellness</u> Building Student Strengths



#### RECYCLE

Universal mental wellness screening and monitoring is a process. Student growth and development is maximized by sustained assessment and caring support across K-12.

#### SEE MORE, LEARN MORE

Dowdy, E., Furding, M. J., Kaline, T. C., Price, M., Murdock, J., ..., Bovery, B. (2014). Enhancing school-based metal health services with a prevanitive and according to approach to universal screening for complexemental health. Journal of School School (2014). Enhancing school - based metal health services with a prevanitive and according to approach to universal screening for complexemental health. Journal of School (2014). Enhancing school - based metal health services with a prevanitive and according to approach to universal screening for complexemental health. Journal of School (2014). Enhancing school - based metal health screening in high school to Directic Internaliting symptoms. School Morra, S., A. & Kaling, T. & Kaling, T. & Kamphay, R. (2014). Universal self-report screening in high school to Directic Internaliting symptoms. School Morra, S., A. & School School (2014). The school of the school o

HTTPS://WWW.COVITALITYUCSB.INFO/SCREENING.HTML

#### **Diversity and Developmental Considerations and Conclusions**

As global citizens, educators all play essential roles in ensuring the well-being of future generations. As change agents, educators are responsible for engaging in conflict resolution and policy change so that youth can thrive. Educators must begin to shed layers of privileged ways of thinking and shift from biased views of assessing deficits and risk factors towards a commitment to honoring and cultivating positive psychological well-being and complete mental health for all generations to come. Concerning questions regarding the Covitality framework's applications with diverse youth, the SEHS system captures well-being among a broad range of students, manifesting individual differences concerning age, gender, cultural background, and other relevant factors. This chapter reviewed fundamental advances that support its use as a unifying construct for understanding the dynamic interplay of a range of internal and external assets that work synergistically to enhance overall well-being among youth from a range of culturally and linguistically diverse youth across the globe. The Covitality framework also makes meaningful relations and unifying connections across different countries and contexts and can integrate research and practice across socio-cultural dimensions. One such example is the emerging relations and school-based applications between Covitality and psychological Suzhi-a Chinese cultural construct comprising a hierarchical, integrated set of positive psychological qualities, representing a traditional Chinese approach to integrating positive constructs (Qian et al., 2020).

Across the three SEHS measures, advances have been made for structural invariance according to age, gender, and nationality and to determine the predictive utility of such scales for youth in primary grades through higher education. The continued need remains to examine the SEHS's factorial invariance across diverse samples of students who differ in socioeconomic circumstances, cognitive dimensions, language skills, and broader distinctions related to culture and ethnicity. Specifically, more work is needed to examine the utility and applicability of the SEHS as a supportive tool to assess strengths and resilience and link with culturally affirming positive psychological interventions among our African-American/Black-identified youth as groups from historically minoritized communities of color. Efforts are underway to continue addressing questions regarding the applicability of the SEHS among specific groups, including foster youth from various ethnic and cultural backgrounds youth with histories of complex trauma receiving residential and nonpublic school supports (i.e., students in more restrictive educational settings), among others. In closing, there is still a need to explore other iterations of the Covitality framework and SESH system, including additional correlations of psychosocial strengths associated with positive youth development as informed explicitly by cultural and linguistic differences. Specifically, there may well be specific combinations of psychological assets that differentially predict various positive outcomes for youth, and cultural and ethnic factors may further influence these differences.

As researchers and practitioners continue to emphasize further understanding student psychosocial strengths, there will likely be continued developments toward a standard of practice for the universal assessment of child and adolescent psychosocial strengths. As with any contemporary approach to assessment, Covitality researchers look forward to not only continued advancements in the comprehensive assessment of youths' psychosocial strengths, mainly as it helps students and school systems across the globe to take a more preventive approach and cultivate strengths, and look forward to continuing to evolve the model to support the resilience within capable youth.

## References

- Alford, Z., & White, M. (2015) Positive school psychology. In M. White & A. Murray (Eds.), *Evidence-based* approaches in positive education (pp. 93–109). Springer. doi:10.1007/978-94-017-9667-5\_5
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*, 67, 1206–1222. doi:10.2307/1131888
- Benson, P. L., Scales, P. C., & Syvertsen, A. K. (2011). The contribution of the developmental assets framework to positive youth development theory and practice. In R. M. Lerner, J. V. Lerner, & J. B. Benson (Eds.), *Advances in child development and behavior* (vol. 41, pp. 197–230). Academic Press.
- Boman P., Mergler A., & Pennell, D. (2017). The effects of covitality on wellbeing and depression in Australian high school adolescents. *Clinical Psychiatry*, 3(2), 1–4 doi: 10.21767/2471-9854.100046
- Bowers, E. P., Li, Y., Kiely, M. K., Brittian, A., Lerner, J. V., & Lerner, R. M. (2010). The Five Cs model of positive youth development: A longitudinal analysis of confirmatory factor structure and measurement invariance. *Journal of Youth and Adolescence*, 39, 720–735. doi:10.1007/s10964-010-9530-9
- Carnazzo, K., Dowdy, E., Furlong, M. J., & Quirk, M. P. (2019). An evaluation of the Social Emotional Health Survey–Secondary for use with students with learning disabilities. *Psychology in the Schools*, 56, 433–446. doi:10.1002/pits.22199

- Chi-Hung, N. (2005). Academic self-schemas and their self-congruent learning patterns: Findings verified with culturally different samples. *Social Psychology of Education*, *8*, 303–328. doi:10.1007/s11218-005-4015-5
- Cox, K. (2006). Investigating the impact of strength-based assessment on youth with emotional or behavioral disorders. *Journal of Child and Family Studies*, 15, 287–301. doi:10.1007/s10826-006-9021-5
- Dougherty, D., & Sharkey, J. D. (2017). Reconnecting youth: Promoting emotional competence and social support to improve academic achievement. *Children and Youth Services Review*, 74, 28–34. doi:10.1016/j.childyouth.2017.01.021
- Dowdy, E., Furlong, M. J., Nylund-Gibson, K., Moore, S., & Moffa, K. (2018). Initial validation of the Social Emotional Distress Scale to support complete mental health screening. Assessment for Effective Intervention, 43, 241–248. doi:10.1177/1534508417749871
- Dowdy, E., Furlong, M. J., Raines, T. C., Bovery, B., Kauffman, B., Kamphaus, R., Dever, B. V., Price, M., & Murdock, J. (2015). Enhancing school-based mental health services with a preventive and promotive approach to universal screening for complete mental health. *Journal of Educational and Psychological Consultation, 25*, 178–197. doi:10.1080/10474412.2014.929951
- Dowdy, E., Ritchey, K., & Kamphaus, R. W. (2010). School-based screening: A population-based approach to inform and monitor children's mental health needs. *School Mental Health*, 2, 166–176. doi:10.1007/s12310-010-9036-3
- Dozois, D. J. A., Eichstedt, J. A., Collins, K. A., Phoenix, E., & Harris, K. (2012). Core beliefs, self-perception, and cognitive organization in depressed adolescents. *International Journal of Cognitive Therapy*, 5, 99–112. doi:10.1521/ijct.2012.5.1.99
- Epstein, M., Hertzog, M., & Reid, R. (2001). The Behavioral and Emotional Rating Scale: Long-term test-retest reliability. *Behavioral Disorders*, *26*, 314–320. <u>https://doi.org/10.1177/019874290102600403</u>
- Furlong, M. J., Coats, S., & Leung, B. (2019, October 24). Monitoring students' complete mental wellness: Tier 1 and tier 2 best practices [Conference presentation]. Annual Meeting of the California Association of School Psychologists, Long Beach, CA. <u>https://www.covitalityucsb.info/ewExternalFiles/CASP%202019%20Workshop%20Covitality%20Furlong</u> %20Coats%20Leung%20copy.pdf
- Fullchange, A., & Furlong, M. J. (2016). An exploration of effects of bullying victimization from a complete mental health perspective. Sage Open (January-March), 1–12. <u>http://sgo.sagepub.com/content/6/1/2158244015623593</u>
- Furlong, M. J., Dowdy, E., Nylund-Gibson, K., Wagle, R., Carter, D., & Hinton, T. (2020). Enhancement and standardization of a universal social-emotional health measure for students' psychological strengths. Manuscript under review.
- Furlong, M. J., Gilman, R., & Huebner, E. S. (Eds.). (2014). Handbook of positive psychology in schools (2nd ed.). Routledge/Taylor & Francis.

- Furlong, M. J., Nylund-Gibson, K., Dowdy, E., Wagle, R., Hinton, T., & Carter, D. (2020a). Modification and standardization of Social Emotional Health Survey-Secondary— 2020 edition. Santa Barbara, CA, University of California Santa Barbara, International Center for School Based Youth Development.
- Furlong, M. J., Nylund-Gibson, K., Dowdy, E., Wagle, R., Hinton, T., & Carter, D. (2020b). Social Emotional Health Survey-Secondary— 2020. Poster. U.S. Department of Education, Institute of Education Science. Principal Investigator Meeting. January 8, 2020, Washington, DC. https://indd.adobe.com/view/47e58539b092-4393-a9cec9a689a62105
- 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. <u>http://link.springer.com/article/10.1007/s12187-013-9193-7</u>
- 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 students. *Social Indicators Research*, 117, 1011–1032. doi:10.1007/s11205-013-0373-0
- Furlong, M. J., You, S., Shishim, M., & Dowdy, E. (2017). Development and validation of the Social Emotional Health Survey–Higher Education version. *Applied Research in Quality of Life*, 12, 343–367. http://link.springer.com/article/10.1007/s11482-016-9464-9
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Child Psychology & Psychiatry & Allied Disciplines*, 38(5), 581–586.
   https://doi.org/10.1111/j.1469-7610.1997.tb01545.x
- Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective wellbeing and psychopathology. *Social Indicators Research*, *54*, 81–108. doi:10.1023/A:1007219227883
- Hinton, T., Dowdy, E., Nylund-Gibson, K., Furlong, M. J., & Carter, D. (2020). Examining the Social Emotional Health Survey-Secondary for use with Latinx youth. Manuscript under review.
- Huebner, E. S., Gilman, R., Reschly, A. L., & Hall, R. (2009). Positive schools. In S. J. Lopez & C. R. Synder (Eds.), *The Oxford handbook of positive psychology* (2nd ed., pp. 561–568). Oxford University Press.
- Iida, J., Ito, A., Aoyama, I., Sugimoto, K., Endo, H., & Furlong, M. J. (2019). Development of Japanese version of Social Emotional Health Survey. *The Japanese Journal of Psychology*. 90, 32–41. <u>https://doi.org/10.4992/jipsy.90.17222</u>
- Ito, A., Smith, D. C., You, S., Shimoda, Y., & Furlong, M. J. (2015). Validation of the Social Emotional Health Survey–Secondary for Japanese students. *Contemporary School Psychology*, 19, 243–252. doi:10.1007/s40688-015-0068-4
- Kern, M. L., Benson, L., Steinberg, E. A., & Steinberg, L. (2016). The EPOCH measure of adolescent wellbeing. *Psychological Assessment*, 28, 586–597. doi:10.1037/pas0000201
- Keyes, C. L. M. (2003). Complete mental health: An agenda for the 21<sup>st</sup> century. In C. L. M. Keyes (Ed.), *Flourishing, positive psychology, and the life well-lived* (pp. 293–312). American Psychological Association.

- Keyes, C. L. M., & Michalec, B. (2010). Viewing mental health from the complete state paradigm. In T. L. Scheid & T. N. Brown (Eds.), *A handbook for the study of mental health: Social contexts, theories, and systems* (pp. 125–134). Cambridge University Press.
- Kim, E., Dowdy, E., Furlong, M. J., & You, S. (2019). Complete mental health screening: Psychological strengths and life satisfaction in Korean students. *Child Indicators Research*, 12, 901–915. doi:10.1007/s12187-018-9561-4
- Lee, S., & Ahn, S. (2018). Complete mental health screening based on a dual-factor model of mental health: Differences among mental health groups and implications on intervention. *The Korean Journal of School Psychology*, *15*(2), 197–219. 이승연, & 안소현. (2018). 정신건강 2 요인 모델에 따른 완전정신건강 선별검사. 한국심리학회지: 학교, 15(2), 197–219.
- Lee, S., You, S., & Furlong, M. J. (2016). Validation of the Social Emotional Health Survey for Korean school students. *Child Indicators Research*, 9, 73–92. doi:10.1007/s12187-0149294-y
- Leffert, N., Benson, P. L., Scales, P. C., Sharma, A., Drake, D., & Blyth, D. A. (1998). Developmental assets: Measurement and prediction of risk behaviors among adolescents. *Applied Developmental Science*, 2, 209– 230. doi:10.1207/s1532480xads0204\_4
- Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., Naudeau, S., Jelicic, H.,
  Alberts, A., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D., Simpson, I., Christiansen, E. D.,
  & Von Eye, A. (2005). Positive youth development, participation in community youth development
  programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H
  Study of Positive Youth Development. *Journal of Early Adolescence, 25*, 17–71.
  doi:10.1177/0272431604272461
- Lenzi, M., Dougherty, D., Furlong, M. J., Dowdy, E., & Sharkey, J. D. (2015). The configuration protective model: Factors associated with adolescent behavioral and emotional problems. *Journal of Applied Developmental Psychology*, 38, 49–59. <u>http://www.sciencedirect.com/science/article/pii/S0193397315000179</u>
- Lips, H. M. (1995). Through the lens of mathematical/scientific self-schemas: Images of students' current and possible selves. *Journal of Applied Social Psychology*, 25, 1671–1699. Retrieved from http://search.proquest.com/docview/618915232?accountid=14522
- Hai-ning, L., Bu-xin, H., Xiao-min, L., Lu-yao, W & Qiao-ling, X. (2016). Reliability and validity of Social Emotional Health Survey-Elementary in Chinese children. *Chinese Journal of Clinical Psychology, 24*, 450–457. doi:10.16128/j.cnki.1005-3611.2016.03.015
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality Social Psychology*, *35*, 63–78. doi:10.1037/0022-3514.35.2.63
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. G. J. (2009). Resilience in development. In S. J. Lopez & C.
  R. Snyder (Eds.), Oxford handbook of positive psychology (2nd ed., pp. 117–131). Oxford University Press.

- Moore, S., Dowdy, E., Nylund-Gibson, K., & Furlong, M. J. (2019a). An empirical approach to complete mental health classification in adolescents. School Mental Health. First Online 23 Jan 2019. https://doi.org/10.1007/s12310-019-09311-7
- Moore, S., Dowdy, E., Nylund-Gibson, K., & Furlong, M. J. (2019b). A latent transition analysis of the longitudinal stability of dual-factor mental health in adolescence. *Journal of School Psychology*, 73, 56–73. doi:10.1016/j.jsp.2019.03.003
- Moore, S., Mayworm, A. M., Stein, R., Sharkey, J. D., & Dowdy, E. (2019). Languishing students: Linking complete mental health screening in schools to Tier II intervention. *Journal of Applied School Psychology*, First online, 27 March, 2019. doi:10.1080/15377903.2019.1577780
- Moore, S. A., & Widales-Benitez, O., & Carnazzo, K. W., Kim, E. K., Moffa, K., & Dowdy, E. (2016). Conducting universal complete mental health screening via student self-report. *Contemporary School Psychology*, 19, 253–267. <u>http://link.springer.com/article/10.1007/s40688-015-0062-x</u>
- Nickerson, A. B. (2007). The use and importance of strength-based assessment. *School Psychology Forum*, 2(1), 15–25. <u>https://www.nasponline.org/publications/periodicals/spf/volume-2/volume-2-issue-1-(fall-2007)/the-use-and-importance-of-strength-based-assessment</u>
- Paz, J. L., Kim, E. K., Dowdy, E., Furlong, M. J., Hinton, T., Piqueras, J. A., Rodríguez-Jiménez, T., Marzo, J. C., & Coats, S. (2020). Contemporary assessment of youth comprehensive psychosocial assets: School-based approaches and applications. In W. Ruch, A. Bakker, L. Tay, & F. Gander (Eds.), *Handbook of Positive Psychology Assessment Psychological Assessment – Science and Practice. European Association of Psychological Assessment*.
- Pineda, D., Piqueras, J. A., Martinez, A., Rodriguez-Jimenez, T., Martínez Gonzalez, A. E., Santamaria, P., & Furlong, M. J. (2017). A new instrument for covitality: The revised Social Emotional Health Survey– Primary in a Spanish sample of children. 14<sup>th</sup> European Conference on Psychological Assessment, Lisbon, Portugal, July.
- Piqueras, J. A., Rodriguez-Jimenez, T., Marzo, J. C., Rivera-Riquelme, M., Martinez-Gonzalez, A. E., Falco, R., & Furlong, M. J. (2019). Social Emotional Health Survey-Secondary (SEHS-S): A universal screening measure of Social-Emotional strengths for Spanish speaking adolescents. *International Journal of Environment Research Public Health, 16,* 4982. doi:10.3390/ijerph16244982
- Qian, N., Yang, C., Teng, Z., Furlong, M. J., Pan, Y., Guo, C., & Zhang, D. (2020, in press). Psychological Suzhi mediates the longitudinal association between perceived school climate and depressive symptoms. *School Psychology*.
- Renshaw, T. R. (2017). Technical adequacy of the Positive Experiences at School Scale with adolescents. *Journal of Psychoeducational Assessment*, 35, 323–335. <u>https://doi.org/10.1177/0734282915627920</u>
- Renshaw, T. L., Furlong, M. J., Dowdy, E., Rebelez, J., Smith, D. C., O'Malley, Lee., S., & Strom, I. F. (2014).
  Covitality: A synergistic conception of adolescents' mental health. In M. J. Furlong, R. Gilman, & E. S.
  Huebner (Eds.), *Handbook of positive psychology in the schools* (2nd ed., pp. 12–32). Routledge/Taylor & Francis. <u>www.tandfebooks.com/isbn/9780203106525</u>

- Scales, P. C. (1999). Reducing risks and building developmental assets: Essential actions for promoting adolescent health. *Journal of School Health*, 69, 113–119. doi:10.1111/j.1746-1561.1999.tb07219.x
- Seligman, M. E. P. (2011). Flourish: A visionary new understanding of happiness and wellbeing. Simon and Schuster.
- Smith, N. D. W., Suldo, S. M., Hearon, B. V., Ferron, J. M. (2020). An application of the dual-factor model of mental health in elementary school children: examining academic engagement and social outcomes. *Journal of Positive Psychology and Wellbeing*, *4*, 49–68. https://www.researchgate.net/publication/340681785
- Suldo, S. M. (2016). Promoting student happiness: Positive psychological interventions in schools. Guildford.
- 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. M., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective wellbeing, 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., & Furlong, M. J. (2017). Adaptation and validation of the Social Emotional Health Survey-Secondary into Turkish culture. *International Journal of School & Educational Psychology*, 5, 255–265. doi:10.1080/21683603.2016.1234988
- Telef, B. B. (2016). Validity and reliability study of Positive Experiences at School Scale (Okulda Pozitif Yaşantılar Ölçeği geçerlik ve güvenirlik çalışması). *Journal of Human Sciences*, *13*(2), 2475–2487.
- Wagle, R., Dowdy, E., Furlong, M. J., Nylund-Gibson K., Carter, D., & Hinton, T. (2020). Anonymous vs. selfidentified response formats: Implications for mental health screening in schools. Assessment for Effective Intervention.
- Wang, C., Yang, C., Jiang, X., & Furlong, M. J. (2018). Validation of the Chinese version of the Social Emotional Health Survey-Primary. *International Journal of School & Educational Psychology*, 6, 62–74. http://dx.doi.org/10.1080/21683603.2016.1272026
- Wilkins, B., Boman, P., & Mergler, A. (2015). Positive psychological strengths and school engagement in primary school children. *Cogent Education*, 2(1), 1–11. http://www.tandfonline.com/doi/full/10.1080/2331186X.2015.1095680
- Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, 17(2), 110–119. doi:10.1007/s10804-009-9082-y
- Wroblewski, A. P., Dowdy, E., Sharkey, J. D., & Kim, E. K. (2019). Social-emotional screening to predict truancy severity: Recommendations for educators. *Journal of Positive Behavior Interventions*, 21, 19–29. doi:10.1177/1098300718768773
- Xie, J., Liu, S., Yang, C., & Furlong, M. J. (2018). Chinese version of Social and Emotional Health Survey– Primary. *Chinese Journal of Clinical Psychology*, 25(6), 1012–1016. doi:10.16128/j.cnki.1005-3611.2017.06.004

- You, S., Dowdy, E., Furlong, M. J., Renshaw, T., Smith, D. C., & O'Malley, M. D. (2014). Further validation of the Social and Emotional Health Survey for high school students. *Applied Quality of Life Research*, 9, 997– 1015. doi:10.1007/s11482-013-9282-2
- You, S., Furlong, M. J., Felix, E., & O'Malley, M. D. (2015). Validation of the Social and Emotional Health Survey for five sociocultural groups: Multigroup invariance and latent mean analyses. *Psychology in the Schools,* 52, 349–362. doi:10.1002/pits.21828
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). Schema therapy: A practitioner's guide. Guilford.
- Zins, J. E., Bloodworth, M. R., Weissberg, R. P., & Walberg, H. J. (2007). The scientific base linking social and emotional learning to school success. *Journal of Educational & Psychological Consultation*, 17(2-3), 191– 210. doi:10.1080/10474410701413145