CONTEMPORARY SCHOOL PSYCHOLOGY

DEVELOPMENT, VALIDATION, AND MULTI-TIER APPLICATIONS OF THE CALIFORNIA STUDENT WELLNESS INDEX

ONLINE SUPPLEMENTAL MATERIAL

CALIFORNIA STUDENT WELLNESS INDEX

CSWI

UC SANTA BARBARA
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metrics

Note. **SR** (Supplemental Resource) is used to label Tables and Figures.

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SECTION 1: CALIFORNIA STUDENT WELLNESS INDEX ITEM - INFORMATION

This section of the technical appendix includes BMSLSS and SEDS administration and scoring forms, along with examples.

- SR1.1 BMSLSS Scoring Example
- SR1.2 SEDS scoring example.
- SR1.3 CSWI Administration Forms (Tier 1-2 Applications)
- SR1.4 CSWI Scoring
- SR1.5 Calculating the CSWI Total Index Score
- SR1.6 Expected Number of Students per 1000 for BMSLSS/SEDS Response Patterns
- SR1.7 Standard Score Values for Each BMSLSS/SEDS Response Pattern
- SR1.8 Example Tracking CSWI Responses Over One School Year

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SR1.1 BMSLSS Scoring Example [1]

The five BMSLSS items and an example of calculating the total score are presented below. **SR2.5** displays the standard score (Mean = 100, SD = 15) for each BMSLSS raw total score value.

I would describe my satisfaction with my FAMILY life as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	✓ Satisfied	Very Satisfied	4

I would describe my satisfaction with my FRIENDSHIPS as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very ✓ Satisfied	5

I would describe my satisfaction with my SCHOOL EXPERIENCES as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	✓ Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	2

I would describe my satisfaction with MYSELF as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	✓ Mildly Satisfied	Satisfied	Very Satisfied	3

I would describe my satisfaction with WHERE I LIVE as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	✓ Satisfied	Very Satisfied	4

Life Satisfaction BMSLSS total raw score 18 (0-25)

[1] The CSWI used the BMSLSS response format suggested by Riemer et al. (2012).

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SR1.2 SEDS Scoring Example

The five SEDS items are listed below, along with an example of calculating the total score. **SR2.5** displays each SED raw total score value's standard score (Mean = 100, SD = 15).

I had a hard time relaxing.

0 Not at All True	1 A Little True ✓	2 Pretty Much True	3 Very Much True	1

I felt sad and down.

0 Not at All True	1 A Little True ✓	2 Pretty Much True	3 Very Much True	1

I was easily irritated.

0 Not at All True ✓	1 A Little True	2 Pretty Much True	3 Very Much True	0

It was hard for me to cope, and I thought I would panic.

0 Not at All True	1 A Little True ✓	2 Pretty Much True	3 Very Much True	1

It was hard for me to get excited about anything.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	1

SEDS distress total raw score 4 (0–15)

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Example: Obtaining the California Student Wellness Index Score

Life Satisfaction: BMSLSS Life Satisfaction raw score ____18____ (0–25)

Past-Month Distress: **Reverse scored** SEDS score here ____11____ (0-15)

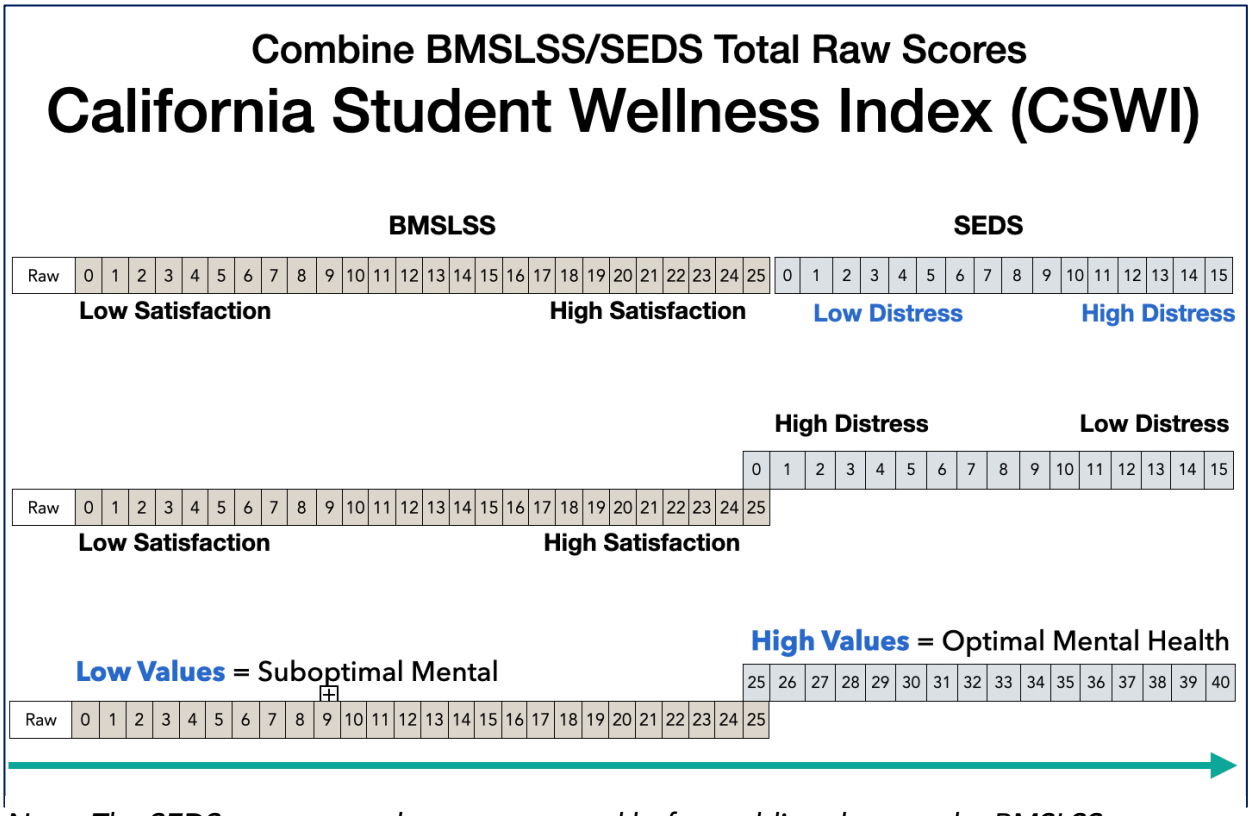
California Student Wellness Index (Range 0-40):

BMSLSS/SEDS 29 (SS = 102)

SEDS Reverse Score Values: Original Raw Score 4, Reverse Score = 11

Original Raw Score	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Reverse Scored	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

(When SEDS values are reversed, 0 = highest distress…15 = lowest distress)



Note. The SEDS raw score values are reversed before adding them to the BMSLSS raw score values.

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SR1.3 CSWI Administration Forms (Tier 1-2 Applications)

CSWI Student Response Form

Name_____ Date_____

Generally, how satisfied are you with your life?

I would describe my satisfaction with my **FAMILY** life as…

Very Dissatisfied	Dissatisfied	A Little Dissatisfied	A Little Satisfied	Satisfied	Very Satisfied

I would describe my satisfaction with my **FRIENDSHIPS** as…

Very Dissatisfied	Dissatisfied	A Little Dissatisfied	A Little Satisfied	Satisfied	Very Satisfied

I would describe my satisfaction with my **SCHOOL EXPERIENCES** as…

Very Dissatisfied	Dissatisfied	A Little Dissatisfied	A Little Satisfied	Satisfied	Very Satisfied

I would describe my satisfaction with **MYSELF** as…

Very Dissatisfied	Dissatisfied	A Little Dissatisfied	A Little Satisfied	Satisfied	Very Satisfied

I would describe my satisfaction with **WHERE I LIVE** as…

Very Dissatisfied	Dissatisfied	A Little Dissatisfied	A Little Satisfied	Satisfied	Very Satisfied

Over the past 30 days, how true do you feel these statements are about you?

I had a hard time relaxing.

Not At All True	A Little True	Pretty Much True	Very Much True

I felt sad and down.

Not At All True	A Little True	Pretty Much True	Very Much True

I was easily irritated.

Not At All True	A Little True	Pretty Much True	Very Much True

It was hard for me to cope, and I thought I would panic.

Not At All True	A Little True	Pretty Much True	Very Much True

It was hard for me to get excited about anything.

Not At All True	A Little True	Pretty Much True	Very Much True

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SR1.4 CSWI Scoring

To evaluate a student's performance, you can compare their total response score (the sum of all items) to the average responses of 626,940 California students who completed the BMSLSS and SEDS during the 2021/22 or the 2022/23 school years. To do this, calculate the student's total score and compare it to the charts provided on the following page.

Record the response value in the far-right-hand column.

I would describe my satisfaction with my FAMILY life as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	

I would describe my satisfaction with my FRIENDSHIPS as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	

I would describe my satisfaction with my SCHOOL EXPERIENCES as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	

I would describe my satisfaction with MYSELF as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	

I would describe my satisfaction with WHERE I LIVE as…

0	1	2	3	4	5	
Very Dissatisfied	Dissatisfied	Mildly Dissatisfied	Mildly Satisfied	Satisfied	Very Satisfied	

BMSLSS Life Satisfaction Total Record the sum of the five satisfaction items here_____ (0-25)

I had a hard time relaxing.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	

I felt sad and down.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	

I was easily irritated.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	

It was hard for me to cope, and I thought I would panic.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	

It was hard for me to get excited about anything.

0 Not at All True	1 A Little True	2 Pretty Much True	3 Very Much True	

SEDS Distress Total Record sum of five distress items (note reserve scored) _____ (0-15

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SR1.5 Obtaining the CSWI Total Point Index Score

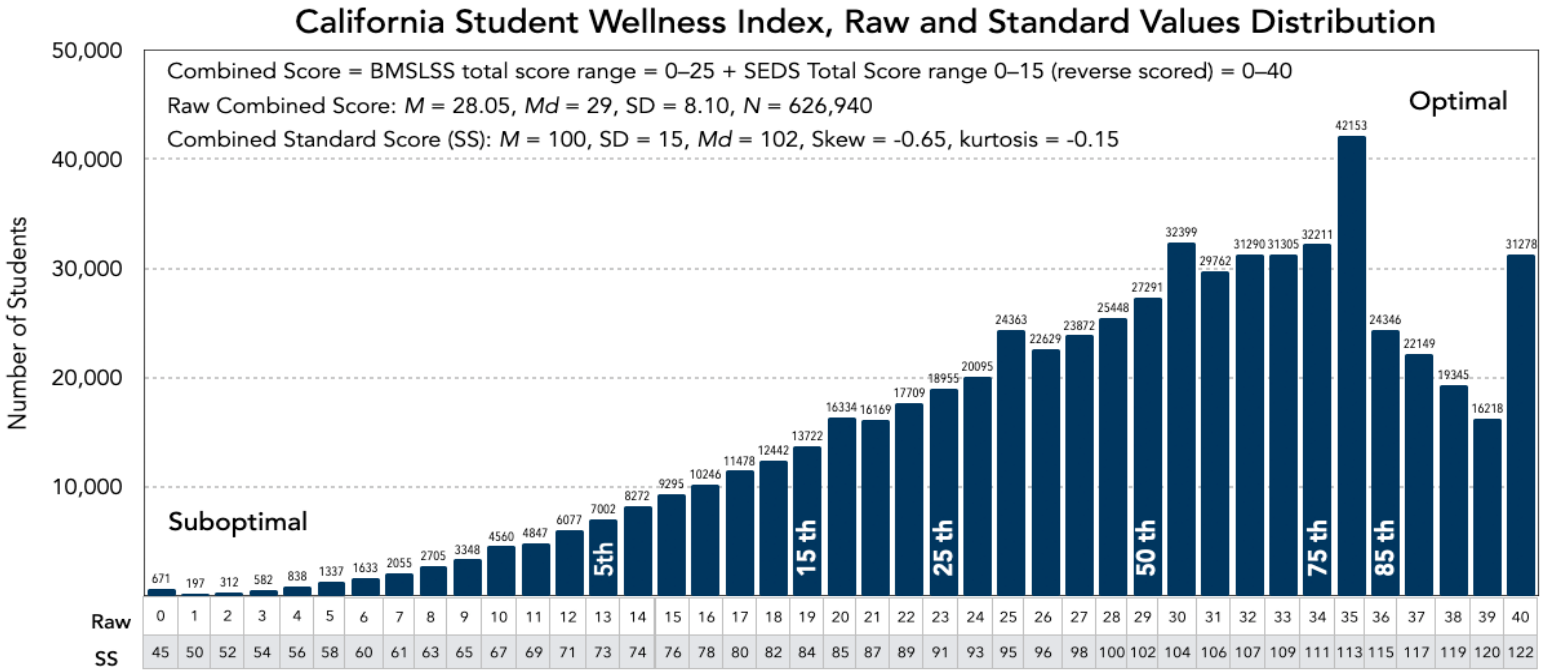
Life Satisfaction Record the BMSLSS Life Satisfaction raw score here _____ (0-25)

Past-Month Distress Record the **reverse scored** SEDS score here _____ (0-15)

California Student Wellness Index (CSWI): BMSLSS/SEDS (0-40) _____

SEDS Original Raw Score to Reverse Score Conversion. (When SEDS values are reversed, 0 = highest distress…15 = lowest distress)

Original Raw Score	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Reverse Scored	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0



SR 2.5 . *CSWI Distribution and Standard Scale Values*

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SR1.6 Expected Number per 1000 for BMSLSS/SEDS Response Patterns

Explanation Note: Empty cells indicate areas with fewer than one student per 1000. The sections in the upper-left matrix with the highest expected cell numbers represent optimal mental health patterns. Conversely, the areas in the lower-right matrix with low life satisfaction and higher distress represent suboptimal mental health patterns reported by the students.

CSWI BMSLSS by SEDS Dual Factor Model Response Array Number of Cell Responses Per 1000				Distress																
				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	*N/1000*
Life Satisfaction	Very Satisfied	BMSLSS	25	50	9	6	5	3	3	1	1	1	1	1					1	81
			24	17	8	6	4	2	2	1	1									42
			23	17	10	8	6	4	3	2	1	1	1	1						54
			22	15	10	10	8	6	5	3	2	2	1	1	1					64
		75th	21	14	10	10	9	7	6	4	3	2	2	1	1	1				73
	Satisfied		20	37	14	15	14	11	11	7	5	4	3	3	2	1	1	1	1	129
		50th	19	12	8	10	10	9	8	6	5	4	3	3	2	1	1	1	1	85
			18	8	5	7	8	8	8	6	5	5	4	3	2	2	1	1	1	74
			17	6	4	5	6	6	7	6	5	5	4	4	2	2	2	1	2	66
			16	4	2	4	5	5	6	5	5	5	4	4	2	2	2	1	2	57
	Little Satisfied	25th	15	7	2	3	4	4	6	4	4	4	4	4	3	2	2	1	2	59
			14	2	1	2	2	3	4	3	4	4	4	4	2	2	2	1	2	42
			13	2	1	1	2	2	3	3	3	3	3	3	2	2	2	1	2	35
			12	1	1	1	1	2	2	2	2	2	3	3	2	2	2	1	3	30
			11	1		1	1	1	2	1	2	2	2	2	2	2	2	1	2	23
	Little Dissatisfied		10	3	1	1	1	1	2	1	2	2	2	2	2	2	1	1	3	25
			9	1				1	1	1	1	1	1	2	1	1	1	1	2	15
			8						1	1	1	1	1	1	1	1	1	1	2	12
			7									1	1	1	1	1	1	1	2	9
			6											1	1	1	1	1	1	7
	Dissatisfied		5	1															1	7
			4																1	3
			3																1	2
			2																	1
			1																	1
	Very Dissatisfied	BMSLSS	0																1	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

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SR1.7 Standard Score Values for Each BMSLSS/SEDS Response Pattern

Explanation Note. This chart shows all 416 possible combinations of BMSLLS x SEDS responses. Each cell contains the corresponding CSWI standard score. To find a student's standard score, add the raw scores for the BMSLSS items (rows) and SEDS items (columns). For example, if a student has a raw score of 16 for BMSLSS and 3 for SEDS, their CSWI standard score is 100. The shading indicates response patterns with standard scores of 100 and 85.

CSWI BMSLSS by SEDS Dual Factor Model Response Array Cell Standard Scores (*M* = 100, *SD* = 15)				Distress																
				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	*N/1000*
Life Satisfaction	Very Satisfied	BMSLSS	25	122	120	119	117	115	113	111	109	107	106	104	102	100	98	96	95	81
			24	120	119	117	115	113	111	109	107	106	104	102	100	98	96	95	93	42
			23	119	117	115	113	111	109	107	106	104	102	100	98	96	95	93	91	54
			22	117	115	113	111	109	107	106	104	102	100	98	96	95	93	91	89	64
		75th	21	115	113	111	109	107	106	104	102	100	98	96	95	93	91	89	87	73
	Satisfied		20	113	111	109	107	106	104	102	100	98	96	95	93	91	89	87	85	129
		50th	19	111	109	107	106	104	102	100	98	96	95	93	91	89	87	85	84	85
			18	109	107	106	104	102	100	98	96	95	93	91	89	87	85	84	82	74
			17	107	106	104	102	100	98	96	95	93	91	89	87	85	84	82	80	66
			16	106	104	102	100	98	96	95	93	91	89	87	85	84	82	80	78	57
	Little Satisfied	25th	15	104	102	100	98	96	95	93	91	89	87	85	84	82	80	78	76	59
			14	102	100	98	96	95	93	91	89	87	85	84	82	80	78	76	74	42
			13	100	98	96	95	93	91	89	87	85	84	82	80	78	76	74	73	35
			12	98	96	95	93	91	89	87	85	84	82	80	78	76	74	73	71	30
			11	96	95	93	91	89	87	85	84	82	80	78	76	74	73	71	69	23
	Little Dissatisfied		10	95	93	91	89	87	85	84	82	80	78	76	74	73	71	69	67	25
			9	93	91	89	87	85	84	82	80	78	76	74	73	71	69	67	65	15
			8	91	89	87	85	84	82	80	78	76	74	73	71	69	67	65	63	12
			7	89	87	85	84	82	80	78	76	74	73	71	69	67	65	63	61	9
			6	87	85	84	82	80	78	76	74	73	71	69	67	65	63	61	60	7
	Dissatisfied		5	85	84	82	80	78	76	74	73	71	69	67	65	63	61	60	58	7
			4	84	82	80	78	76	74	73	71	69	67	65	63	61	60	58	56	3
			3	82	80	78	76	74	73	71	69	67	65	63	61	60	58	56	54	2
			2	80	78	76	74	73	71	69	67	65	63	61	60	58	56	54	52	1
			1	78	76	74	73	71	69	67	65	63	61	60	58	56	54	52	50	1
	Very Dissatisfied	BMSLSS	0		74	73	71	69	67	65	63	61	60	58	56	54	52	50	48	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

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SR1.8 Example Tracking CSWI Responses Over One School Year

			Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
			SEDS	25th			50th				75th							SEDS	
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	N/1000
Very Satisfied	BMSLSS	25	122	120	119	117	115	113	111	109	107	106	104	102	100	98	96	95	81
		24	120	119	117	115	113	111	109	107	106	104	102	100	98	96	95	93	42
		23	119	117	115	113	111	109	107	106	104	102	100	98	96	95	93	91	54
		22	117	115	113	4	109	107	106	104	102	100	98	96	95	93	91	89	64
	75th	21	115	113	111		107	106	104	102	100	98	96	95	93	91	89	87	73
Satisfied		20	113	111	109	107	106	104	102	100	98	96	95	93	91	89	87	85	129
	50th	19	111	109	107	106	104	102	100	98	96	95	93	91	89	87	85	84	85
		18	109	107	106	104	102	100	2	96	95	93	91	89	87	85	84	82	74
		17	107	106	104	102	100	98		95	93	91	89	87	85	84	82	80	66
		16	106	104	102	100	98	96	95	93	91	89	87	85	84	82	80	78	57
Little Satisfied	25th	15	104	102	100	98	96	95	93	91	89	87	85	84	82	80	78	76	59
		14	102	100	98	96	95	93	91	89	87	85	84	82	80	78	76	74	42
		13	100	98	96	3	93	91	89	87	85	84	82	80	78	76	74	73	35
		12	98	96	95		91	89	87	85	84	82	80	78	76	1	73	71	30
		11	96	95	93	91	89	87	85	84	82	80	78	76	74		71	69	23
Little Dissatisfied		10	95	93	91	89	87	85	84	82	80	78	76	74	73	71	69	67	25
		9	93	91	89	87	85	84	82	80	78	76	74	73	71	69	67	65	15
		8	91	89	87	85	84	82	80	78	76	74	73	71	69	67	65	63	12
		7	89	87	85	84	82	80	78	76	74	73	71	69	67	65	63	61	9
		6	87	85	84	82	80	78	76	74	73	71	69	67	65	63	61	60	7
Dissatisfied		5	85	84	82	80	78	76	74	73	71	69	67	65	63	61	60	58	7
		4	84	82	80	78	76	74	73	71	69	67	65	63	61	60	58	56	3
		3	82	80	78	76	74	73	71	69	67	65	63	61	60	58	56	54	2
		2	80	78	76	74	73	71	69	67	65	63	61	60	58	56	54	52	1
		1	78	76	74	73	71	69	67	65	63	61	60	58	56	54	52	50	1
Very Dissatisfied	BMSLSS	0		74	73	71	69	67	65	63	61	60	58	56	54	52	50	48	4
		N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

Date 1: September 15, 2023 Date 2: December 15, 2023 Date 3: March 15, 2024 Date 4: May 15, 2024

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SECTION 2: CALIFORNIA HEALTHY KIDS SURVEY

This section of the Online Supplemental Material summarizes the procedures for administering the California Healthy Kids Survey and describes the data quality analyses of the CSWI responses.

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California Healthy Kids Survey

The California Department of Education (CDE) launched CalSCHLS in 1997 to provide school districts and their partner communities with cost-effective and efficient methods of collecting local data. The goal was to enhance students' academic performance and support their social-emotional, behavioral, and physical well-being. As a result, most California districts now use CalSCHLS data as indicators for their Local Control and Accountability Plan (LCAP).

CalSCHLS is a system that provides data about school climate and safety, learning supports and barriers, youth development, health, and wellness to districts, schools, and communities. It is a flexible system that delivers data tailored to individual school needs. CalSCHLS can be customized to explore local concerns and interests. The surveys conducted by the CDE assess perceptions of students, staff, and parents/guardians about school climate, student well-being, and the learning environment in California public schools.

The CalSCHLS system includes three surveys:

- **California School Staff Survey (CSSS)** measures staff perceptions about learning and teaching conditions
- **California School Parent Survey (CSPS)** provides teachers, administrators, and school staff with information directly from parents.
- **California Healthy Kids Survey (CHKS)** items focus on resiliency, protective factors, risk behaviors, and school climate.

CHKS Questionnaire

The CHKS is designed for different age groups, with versions available for high school (grades 9-12) and middle school (grades 6-8). The 2023/24 high school version includes 142 carefully selected items relevant for high school students. The middle school version contains 135 items, ensuring age-appropriate content by excluding items that may not be suitable for younger students. Both questionnaire forms include all ten CSWI items, which are presented near the end of the survey ([SEDS high school items = 129-133 and middle school =122-126] BMSLSS high school items = 137-141 and middle school =130-134).

The following introduction is presented to students before they decide whether to participate in the CHKS survey.

> *This survey asks about your behavior, experiences, and attitudes about your school, health, and well-being. The survey also includes questions about the use of alcohol, tobacco, and other drugs, and bullying and violence.*

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The survey is anonymous and confidential. No one will ever be able to connect you with your answers. Your answers are private.

You do not have to answer these questions, but your answers will be very helpful in improving school and health programs. You can answer whether you have done or experienced any of these things.

This survey asks about things you may have done during different periods, such as during your lifetime (you ever did something), the past 12 months, or 30 days. Each provides other information. Please pay careful attention to these periods.

Thank you for taking this survey!

CHKS Survey Administration Procedures

Over the past 25 years, CHKS has enhanced its survey management and administration procedures, providing all the necessary resources to conduct school wellness surveys. Although schools are not obligated to have parents and students complete the CHKS survey, most have chosen to do so, with many now conducting the survey annually. The survey results are utilized to assess student wellness, evaluate the health of the school environment, and inform and assess school improvement plans. Schools use CHKS information to review and adjust their safety plans.

The oversight and management of CHKS involves the contributions of WestEd technical advisors, a district coordinator, and school-site coordinators. Additionally, WestEd staff has created a CHKS management and administration video library.

The district coordinators have two primary responsibilities. First, they need to identify and train school site coordinators. Second, they distribute survey URLs to school site coordinators and classroom teachers/proctors. These individuals will then be in charge of administering the survey to the students. The district coordinators must also communicate with the school site coordinators to ensure increased participation and survey completion.

As a part of obtaining informed consent, the site coordinators are responsible for ensuring that parents or guardians have access to the survey modules through various means, such as the school website, other electronic communication channels, and even hard copies available at the school office. They also track the students who do not have permission (i.e., parental consent) to participate in the survey. Additionally, they share the survey URL with the classroom teachers or proctors and notify them if any student does not have parental consent to participate. The site coordinators also provide the proctors with a Survey Administration Packet that contains scripts, instructions, and an assurance of confidentiality. Finally, when

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completed, the site coordinators collect and return the parental consent forms and confidentiality assurance.

The California Healthy Kids Survey (CHKS) is typically given to students in a regular classroom setting. A school staff member, often a teacher, supervises the survey process according to a specific protocol outlined in the teacher packet. This protocol ensures that students whose parents did not give permission do not participate in the survey. It also includes safeguards for students' privacy, such as seating arrangements and an introductory script. Proctors are present to monitor and ensure privacy and confidentiality, but they do not move around the room while students complete the survey. Their role is only to assist students as needed. Furthermore, proctors only define substance use within the context of the questions in the questionnaire.

All school personnel involved in the CHKS's management and administration must sign an Assurance of Confidentiality (Secondary Survey Administration Packet, p. 5).

CHKS Online Administration Platform

The CHKS Core module is administered on the Qualtrics platform.

The instructions for this anonymous survey are as follows:

> *This survey asks about your behavior, experiences, and attitudes related to your school, health, and well-being. The survey also includes questions about use of alcohol, tobacco, and other drugs, and bullying and violence.*
>
> *The survey is anonymous and confidential. No one will ever be able to connect you with your answers. Your answers are private.*
>
> *You do not have to answer these questions, but your answers will be very helpful in improving school and health programs. You will be able to answer whether or not you have done or experienced any of these things.*
>
> *This survey asks about things you may have done during different periods of time, such as during your lifetime (you ever did something), or the past 12 months, or 30 days. Each provides different information. Please pay careful attention to these time periods.*

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CHKS Data Dashboard

The district coordinator has access to a password-protected dashboard that displays the responses received during the survey. This dashboard enables daily progress tracking and includes response counts as part of a comprehensive data collection from previous and current CHKS administrations. You can view a video overview of the public dashboard for additional information.

CSWI Sample Response Quality Checks

The data used in this CSWI report was collected from district administrations during the 2021/22 and 2022/23 academic years. The report includes responses from 2,608 schools in 660 districts spread across 57 out of 58 counties in California. It is important to note that district CHKS administrations do not follow a random sampling plan. Instead, they seek permission from all parents for their children to participate in the survey. All districts requested parental permission for Grades 7, 9, and 11. Districts included students at other grade levels (6, 8, 10, and 12) at their discretion. The sample included students who answered all ten CSWI items and passed the response quality checks.

Case Rejection Rules

Using CHKS responses, a total score is calculated based on:

1. Inconsistencies in Alcohol and Other Drugs (AOD) use.
2. Report of lifetime use of a fictitious drug.
3. Adjusted counts of daily AOD use.
4. Report of dishonesty in answering survey questions.

If a respondent scores 3 or above, the variable "rejectx" is coded 2 (yes, rejected).

a. ***Inconsistency*** (ranging from 0 to 4); score is one if…
   - "No" on lifetime whole cigarette use and "Yes" on current cigarette smoking.
   - "No" on lifetime one drink of alcohol and "Yes" on current alcohol use
   - "No" on lifetime marijuana use and "Yes" on current marijuana use.
   - "No" on lifetime inhalant use and "Yes" on current inhalant use.
b. ***Fictitious drug use*** (ranging from 0 to 1)
   - Score is one if "Yes" on lifetime use of "Relevan."
c. ***Adjusted counts of current daily AOD use*** (ranging from 0 to 4 for 7th graders, 0 to 3 for 9th and 11th graders, and 0 to 2 for students in non-traditional schools)

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- Total counts of current daily AOD use (ranging from 0 to 4 for middle and high school grades); the score is one if……
  i. "20-30 days" on current alcohol use, current binge drinking, OR current alcohol use at school
  ii. "20-30 days" on current marijuana use OR current marijuana use at school.
  iii. "20-30 days" on current inhalant use
  iv. "20-30 days" on current any other illegal drug or pill to get "high."
- Counts adjusted downward 1 point for respondents in Grades 9 to 12 in traditional public schools.
- Counts adjusted downward 2 points for respondents in non-traditional schools.

d. ***Dishonesty*** (ranging from 0 to 2; How many questions in this survey did you answer honestly?")
   - The score is one if you answered only some survey questions honestly.
   - The score is two if you answered hardly any survey questions honestly.

In 2021/22 and 2022/23, 0.7% of the students who completed all ten CSWI items were excluded because they had a rejectx score of 3 or higher. All students in the final CSWI sample passed the rejectx data quality check.

Responders

The main goal of the CHKS case rejection rule is to determine if a student has given an abnormally high number of very high or very low responses, such as consistently choosing the highest use frequency (4 or 5) on many Likert scales for multiple substances. However, this rule may not effectively identify straight-line responses, especially if the student consistently selects the lowest (0) response option for several questions.

The CSWI survey is conducted online and utilizes a matrix response format, as demonstrated in **SR2.1.** Some students who do not fully engage in the survey might provide either all "0" (not like me, lower left quadrant) or all "4" (very much like me, upper right quadrant) responses. The four patterns illustrated in **SR2.1** represent the extreme straight-line patterns and the typical Dual-Factor Mental Health (DFM) groups they would define. We use the DFM category labels as the four extreme response patterns, which, if legitimate, would otherwise serve as category exemplars.

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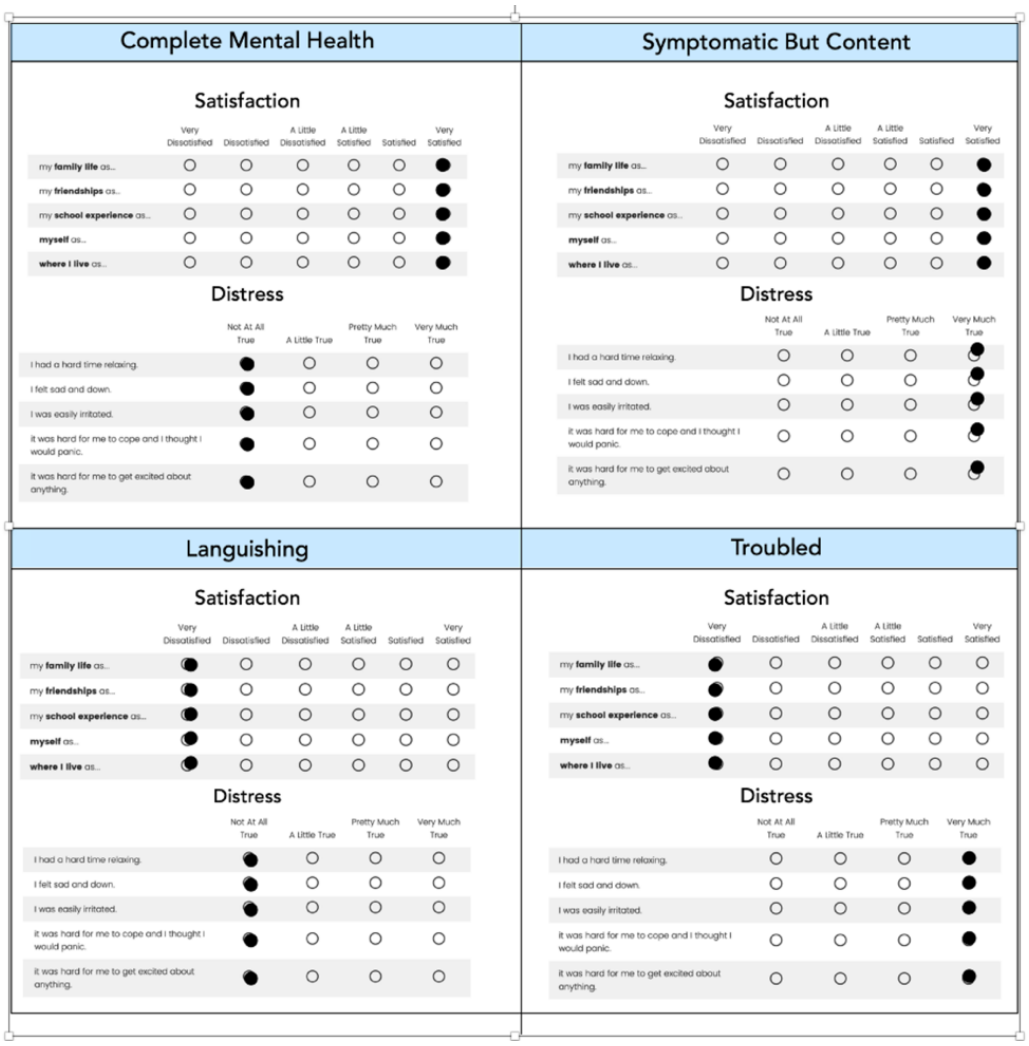

SR 2.1. BMSLSS-SEDS Straight-Line Responding Patterns: DFM Mental Groups

Complete Mental Health (5–0)

Among the 626,940 students surveyed, the most common response was from those who indicated being "very satisfied" (5) with all five areas of life satisfaction and had no emotional distress in the past month (5-0). This response pattern was observed in approximately 5% of the students. It is important to note that these students may not have provided socially desirable answers. Some of them may have been "satisficers," meaning they exerted minimal effort to give differentiated answers, which could have influenced the results.

Troubled (0–3)

A group of students reported feeling "very dissatisfied" with all five areas of life satisfaction and responded "very much like me" for all five distress items. These students reported high

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levels of sadness, suicidal ideation, low school belonging, and low optimism. Some students in the lower-right quadrant of the BMSLSS/SEDS response grid may have exaggerated their responses compared to other students. This pattern is rare, occurring only once per 1000 students. Additionally, other adjacent cells on the BMSLSS/SEDS matrix are less frequently reported.

Symptomatic but Content (5–3)

According to the survey results, only a small percentage of students (1 in 1000) gave the highest rating of "very satisfied" (5) for all life satisfaction items, as well as the highest rating of "very much true" (5) for all distress items. This type of response pattern is considered rare. Additionally, other adjacent cells in the BMSLSS/SEDS matrix also appeared less frequently. Some students who gave this straight-line response pattern may have either exaggerated their distress level or not taken the survey seriously.

Languishing (0–0)

Some students provided unexpected answers. They claimed they had not experienced any distress in the past month but reported the lowest possible level of life satisfaction. These students consistently selected the lowest response option (0-0) for each item, suggesting insincerity in their survey responses. This behavior was observed in 9 out of 1000 students. Furthermore, 70% of students who answered "very dissatisfied" to all five life satisfaction items exhibited this response pattern.

Few neighboring lower-left cells in the matrix showed even one response per 1000. These students reported low levels of chronic sadness and thoughts of suicide. Students who show this response pattern may indicate minimal effort in taking the survey or mischievous intent. The distribution characteristics of the CSWI change only slightly when these students are included in the overall sample calculations.

Factors Associated with Straight-Line Responding

The CSWI items are presented in a matrix format, with the items listed on the left and matrix response options on the right, as shown in **SR2.1.** This item format efficiently asks students to complete surveillance surveys with more than 100 items, such as the CHKS and the YRBS. However, matrix response formats can make it easier for respondents to answer the items with minimal effort and thoughtfulness. As an initial examination of the effect of satisficing responders, particularly for the 0-0 responders, we analyzed responses from a fall 2023 wellness survey conducted in one school district. The district's wellness survey consisted of 36 items, allowing us to present them individually. The Qualtrics platform administered the online

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survey. The BMSLSS and SEDS items appeared in a random order for each student. A total of 3,143 students in Grades 6-12 completed the survey.

Compared to the large CHKS sample with over 600,000 responses, students in this district were **less likely to give "straight-line"** answers, particularly 0-0 responses.

1. Languishing: CHKS 9 per 1000, District 0.6 per 1000
2. Complete Mental Health: CHKS 49 per 1000, District 25 per 1000
3. Symptomatic but Content: CHKS = 1 per 1000, District 0.3 per 1000
4. Troubled: CHKS = 1 per 1000, district 0.6 per 1000

We conducted an additional analysis to assess the quality of the straight-line responders. In the CHKS questionnaire, the SEDS (129-133) and BMSLSS (137-141) items are presented at the end of the survey, with three optimism items from the Social Emotional Health Survey-Secondary-2020 (refer to page 62 of this report) listed in-between. We examined the responses to these three optimism items to determine if straight-line responding persisted among the participants. For instance, did the respondents who answered "0-0" to all questions also answer "0" to all three optimism items? **SR2.2** illustrates the response patterns for the four straight-line response groups regarding the optimism items.

After answering "0" to all ten CSWI questions, 86.3% of the students continued by answering "0" to all three optimism items. Most of these students consistently chose the lowest response across all 13 items. Additionally, students who scored between 3 and 5 on the SBC scale showed less response consistency; they answered "3" to the SEDS items, and 64.3% answered "3" to all three optimism items.

The groups 0-5 (CMH) and 3-0 (Troubled) exhibited the lowest response consistency. Students in the 0-5 group consistently chose "0" as their response to all SEDS items, with only 18% giving the same response for all optimism items. On the other hand, students in the 3-0 group consistently chose "3" as their response to all SEDS items, but only 18.9% of them persisted with the same optimistic response. A majority (63.3%) of students in this group gave a "0" response. Lastly, all students in the 0-5 group answered "0" to the five SEDS items, and only 18% answered "0" to the optimism items.

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SR2.2 Percentage All "0" (Lowest Response Option) and All "3" (Highest Response Option) responses to Optimism Items Appearing in the CHKS Survey In between the SEDS and BMSLSS Items

	0–0 Languishing	0–5 CMH	3–5 SBC	3–0 Troubled	All Other Students
Optimism all "0" responses	86.3%	18.0%	11.6%	63.3%	10.1%
Optimism all "3" responses	3.9%	47.6%	64.3%	18.9%	7.3%

0 responses = (not at all true) to all three optimism items. The lowest response option.
4 responses = (very much true) to all three optimism items. The highest response option.
0–0 = All BMSLSS answered *very dissatisfied* (0), and all SEDS answered *not at all true (0)*.
5–0 = All BMSLSS answered *very satisfied* (5), and all SEDS answered *not at all true (0)*.
5-3 = All 5 BMSLSS answered *very satisfied* (5), and all 3 SEDS answered very much true (3).
0-3 = All 5 BMSLSS answered *very dissatisfied (0)*, and all 3 SEDS answered *very much true (3)*.
CMH = Complete Mental Health. SBC = Symptomatic by Content.

Does the CSWI Distribution Represent California Students?

The aggregated local CHKS comprises data from 660 districts during the 2021/22 and 2022/23 academic years. The CHKS aims to provide representative data on students in school districts. However, because district participation in the survey is voluntary, the data may not fully represent all students in the state. Districts must meet three standards to collect representative data: (a) all district schools must participate, (b) appropriate class subjects or periods should be used for survey administration, and (c) the number of completed usable responses obtained per grade should be 70% or more of the selected sample.

To assess the CSWI's central tendency characteristics for California secondary students, we examined the CSWI characteristics from an independent sample of students collected for the Biennial CHKS. The Biennial CHKS uses a random sample of 120 secondary schools that surveyed their students during the 2021/22 and 2022/23 school years. A random sample of 42,127 students from 116 schools served by 58 districts participated in the Biennial CHKS. The Biennial sample is representative of California students in terms of gender identification, race/ethnicity, geographic region, and school size. The difference in effect size between the Biennial CHKS CSWI mean (M = 27.55; SD = 8.12; and Md = 29) and the local aggregated CHKS mean (M = 28.05; SD = 8.10; and Md = 29) was found to be small (d = .06).

Although the student responses used to develop and evaluate the CSWI are not based on a random sample of California students, the robustness of the CSWI is not compromised. The large sample size and wide geographic distribution, combined with the district sampling

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plans, work together to maximize sample representativeness and ensure the validity of the findings.

Data Quality Check Implications

It's important to consider that students' survey responses can be influenced by social desirability, careless or uninterested answering, response inconsistencies (Cornell et al., 2012), and mischievous responses (Robinson-Cimpian, 2014). Therefore, it's necessary to emphasize the need to thoroughly examine both large and small data sets to assess their quality (Furlong et al., 2017). In the previous report section, we described the analyses we conducted to evaluate the quality of the CSWI sample data. Our analysis allowed us to draw the following conclusions, highlighting the importance of comprehensive data quality checks:

- The CHKS survey administration and management are well-established, providing a solid basis for obtaining high-quality data.
- We encountered various types of response bias in the lengthy survey aimed at collecting data from a large population. To mitigate these biases, we implemented multicomponent reject rules to identify and filter out random, inconsistent, and exaggerated responses. Our analysis revealed that only 0.7% of responses were rejected, indicating that most students answered the survey reasonably.
- Our analysis indicates that the linear (straight-line) response pattern, which accounts for 6% (38,131) of the total responses, had minimal impact on the overall data quality and central tendency characteristics of BMLSS and SEDS.
- We observed a specific pattern in the responses to the CSWI questionnaire. The 0-0 (Languishing) response pattern stood out because the nearby cells in its lower left CSWI response pattern matrix almost always had an incidence of fewer than one student per 1000. This pattern raised concerns about the quality of these students' responses. As a result, we excluded the 5,448 0-0 responders from the CSWI norming and validation sample. We applied the rejection rule and excluded 1.6% of students who answered all ten CSWI items. [2]
- The pattern of 0–5 (CMH) responses, where students reported the highest level of life satisfaction and the lowest level of distress, was the most common for the entire

[2] After conducting this analysis, we found that excluding certain cases had minimal impact on the CSWI psychometrics and distribution. The CSWI mean was 27.94 with all responders included and 28.05 when certain cases were excluded. The median value of 29 remained unchanged. Additionally, excluding all four corner groups also had minimal effect on the CSWI distribution characteristics: mean (M) = 27.45, standard deviation (SD) = 7.77, skewness = -0.68, kurtosis = -0.19, and total number of cases (*N*) = 594227. The median (Md) remained 29, with the 5th percentile at 13, 15th percentile at 19, 25th percentile at 22, 50th percentile at 29, 75th percentile at 45, and 85th percentile at 35.

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sample. Although this pattern is straight-line, most non-straight-line students' responses fall into this same upper-left CSWI response pattern matrix. Additionally, these students' responses to other items, such as chronic sadness, suicidal ideation, school belonging, and optimism, aligned with the responses of students in adjacent response cells.

- The SBC (n = 764) and Troubled (n = 671) constituted only 0.1% of the CSWI sample. Due to their small numbers, we included them in the CSWI development sample.

- The lower percentage of direct responses when the CSWI items were presented individually in a district wellness survey suggests a methodological approach to improve data quality.

Although no data quality check can catch every questionable response, the CSWI sample had very few of these types of responses. Furthermore, even among the invalid responses in the sample, their impact on the overall CSWI distribution characteristics was insignificant due to their small number. Nevertheless, conducting response quality checks when using the CSWI to evaluate specific student responses is still advisable.

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SECTION 3: CSWI PSYCHOMETRIC CHARACTERISTICS

Section 3 presents analyses evaluating the psychometric properties of the CSWI, including evidence of criterion and predictive validity.

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Concurrent Validity with Social Emotional Health Survey-Secondary Sample

During the academic years 2020/21 and 2021/22, 78,769 students participated in the California Healthy Kids Survey and completed the Social and Emotional Health Survey-Secondary (SEHS-S-2020). These students, who were in grades 6-12, were 48.8% male, 47.1% female, 2.2% nonbinary, and 1.9% another gender identification. The data from these students was used to assess the concurrent validity of the CSWI.

The SEHS-S-2020 (36 items) assesses students' social and emotional strengths across four domains, with three items per subscale (Furlong et al., 2021, 2023).

1. Belief in Self (self-awareness, persistence, self-efficacy).
2. Belief in Others (school support, family coherence, peer support).
3. Emotional Competence (empathy, self-control, behavioral self-control).
4. Engaged Living (gratitude, zest, and optimism).

Confirmatory factor analysis (CFA) and measurement invariance are the statistical techniques used to provide validity and reliability evidence.

The CSWI significantly correlated with the SEHS-S-2020 (Social Emotional Health Survey-Secondary) scores across its four domains. The concurrent validity coefficients are as follows: Belief in Self (r = .57), Belief in Others (r = .51), Emotional Competence (r = .25), and Engaged Living (r = .62). These coefficients indicate that the 10-item CSWI moderately correlates with other relevant aspects of students' positive social-emotional health.

Stability and Predicative Validity with the Mental Health Continuum-Short Form Sample

We examined data from a yearly student wellness survey in a California school district to assess the reliability and consistency of the CSWI. The survey included various well-being measures, such as the BMSLSS and the SEDS. Students took part in the survey in October of both 2022 and 2023.

Procedures

Ten years ago, the district implemented a voluntary school-wide wellness survey for students. Parents had the option to deny permission for their children to participate, and students could

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choose not to take the survey. The survey was conducted online during a regular class session, and a teacher supervised the process following established procedures. Students were permitted to skip any question they did not feel comfortable answering. School staff reviewed the survey results to evaluate and provide support services to promote positive social-emotional development for the students.

Participants

For this validity analysis, we identified 1,839 students who completed the survey in both years. In 2022, our analysis focused on 1,839 students who completed the survey in both years. In 2022, they were in Grades 6 (172, 9.4%), 7 (200, 10.9%), 8 (209, 11.4%), 9 (448, 24.4%), 10 (433, 23.5%), or 11 (377, 20.5%). When asked to identify their preferred gender identity, most students indicated they identified as female (45.7%) or male (48.7%). A smaller proportion of the participants identified as nonbinary (2.7%), as having a different identity (not listed, 2.9%) or declined to answer the gender identity question (0.2%).

Regarding the question about being transgender, the majority of students indicated that they did not identify as transgender (91.3%), 2.8% identified as transgender, 2.6% were unsure, and 3.3% declined to respond.

When asked about their sexual orientation, most students identified as straight, not gay or lesbian (71.4%), followed by bisexual (10.9%), not sure of their sexual orientation yet (7.4%), identifying as some other sexual orientation (4.2%), gay or lesbian (3.0%), or declined to respond to this question (3.8%).

In terms of ethnic groups, the students identified as follows: White, not Hispanic or Latinx (51.4%), Latinx or Hispanic (28.2%), two or more groups (12.7%), Asian (3.0%), Black or African American (2.5%), Native Hawaiian or Pacific Islander (0.8%), American Indian or Alaskan Native (0.5%), and some declined to respond (0.2%).

District Wellness Survey Application

The wellness survey included the BMSLSS and the SEDS, as described in this technical report. It also consists of the following measures to assess the concurrent and predictive validity of the CSWI.

Mental Health Continuum–Short Form

The Mental Health Continuum Short Form (Keyes, 2006) measures Emotional Well-Being (EWB), Psychological Well-Being (PWB), and Social Well-Being (SWB). Previous studies have

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confirmed its three-component structure (Lamers et al., 2011). The survey asks respondents how often they have felt specific ways over the past month. For example, a question related to PWB might be "You liked most parts of your personality," for SWB, it could be "People are good." Responses range from 0 = never to 5 = every day. Answering "every day" or "almost every day" indicates "flourishing" mental health, while "never" or "once or twice" suggests "languishing" mental health. The correlation between the 2022 and 2023 CSWI and their corresponding EWB, PWB, and SWB scores provided concurrent validity coefficients. If the CSWI-MHC-SF validity coefficients are significant, it would indicate that the CSWI effectively measures crucial aspects of adolescents' overall well-being. **SR3.1–SR3.3** show MHC-SF sample emotional, social, and psychological well-being items, **SR3.4** shows a global life satisfaction validity check item.

SR3.5 presents the internal consistencies of BMSLSS and SEDS. The reliability coefficients for these measures ranged from 0.72 to 0.82 in both 2022 and 2023, indicating acceptable levels of reliability for all students, including male—and female-identifying students. The one-year CSWI stability coefficient (r = 0.61) showed moderate consistency in students' responses over the years while also allowing for sensitivity to changes in students' life experiences.

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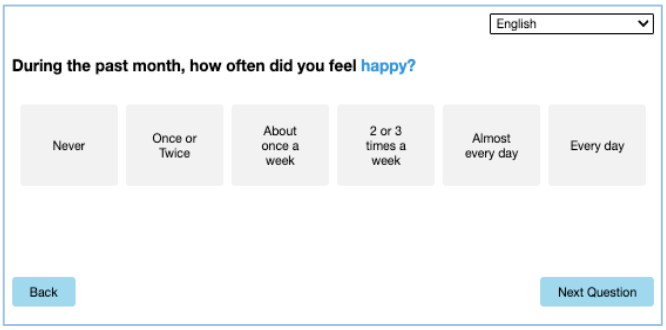
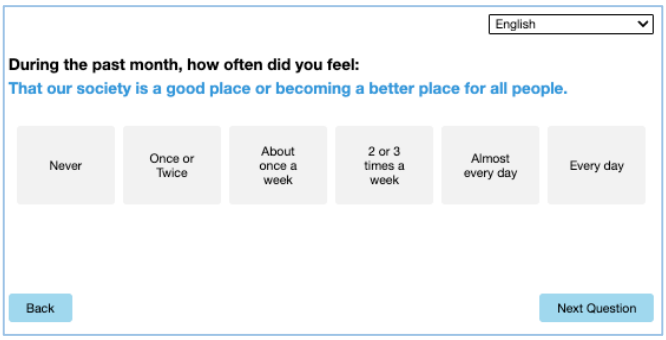
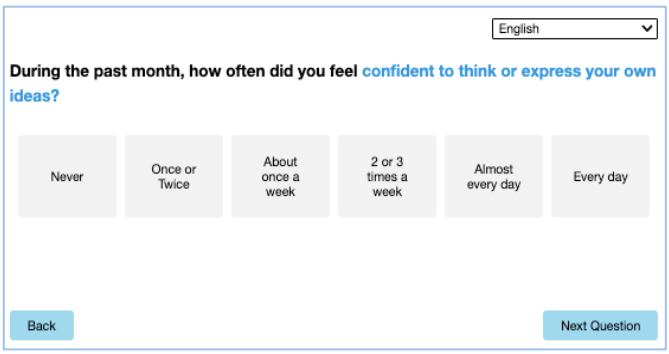


SR3.1 Sample MHC-SF Emotional Well-Being Qualtrics Survey Item Presentation



SR3.2 Sample MHC-SF Social Well-Being Qualtrics Survey Item Presentation



SR3.3 Sample MHC-SF Psychological Well-Being Qualtrics Survey Item Presentation

SR3.4. Global Life Satisfaction Qualtrics Survey Item Presentation

A survey question asked students to rate their overall life satisfaction. A single-item measure is commonly used in life satisfaction research and offers another way to assess the CSWI's concurrent validity (Jovanović & Lazić, 2020; Lukoševičiūtė, 2022).

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SR3.5 CSWI Reliability (Alpha) and One-Year Stability Coefficients

	Measures	One-Year Stability	2022 α	2023 α
All Genders (*N* = 1839) [a]	BMSLSS	0.58	0.73	0.72
	SEDS	0.52	0.82	0.82
	CSWI	0.61 [b]	—	—
Female (*N* = 841)		One-Year Stability	2022 α	2023 α
	BMSLSS	0.55	0.72	0.70
	SEDS	0.52	0.83	0.82
	CSWI	0.59	—	—
Male (*N* = 895)		One-Year Stability	2022 α	2023 α
	BMSLSS	0.66	0.75	0.73
	SEDS	0.71	0.77	0.79
	CSWI	0.48	—	—

[a] Coefficients (Pearson correlation) for all students, including those reporting nonbinary or another gender identification.

[b] Stability coefficient range = *r* = .55–.57 for gender identification and *r* =.42–.61 for ethnic identification.

SR3.6 CSWI Concurrent and Predictive Stability Coefficients by Gender Identification

All Students (N = 1839)	**Validity**	**0-100**	**EWB**	**PWB**	**SWB**
2022 CSWI —> 2022 Indicators	Criterion	0.71	0.74	0.64	.70
2023 CSWI —> 2023 Indicators	Criterion	0.67	0.74	0.69	.66
CSWI 2022—> 2023 Indicators	Predictive	0.43	0.52	0.50	.50
Female (n = 841)		**0-100**	**EWB**	**PWB**	**SWB**
2022 CSWI —> 2022 Indicators	Criterion	0.71	0.74	0.72	.65
2023 CSWI —> 2023 Indicators	Criterion	0.65	0.74	0.69	.65
CSWI 2022—> 2023 Indicators	Predictive	0.42	0.50	0.49	.51
Male (n = 895)	**Validity**	**0-100**	**EWB**	**PWB**	**SWB**
2022 CSWI —> 2022 Indicators	Criterion	0.66	0.70	0.65	.60
2023 CSWI —> 2023 Indicators	Criterion	0.68	0.71	0.68	.64
CSWI 2022—> 2023 Indicators	Predictive	0.42	0.50	0.48	.45
Nonbinary (n = 49)	**Validity**	**0-100**	**EWB**	**PWB**	**SWB**
2022 CSWI —> 2022 Indicators	Criterion	0.72	0.63	0.59	.50
2023 CSWI —> 2023 Indicators	Criterion	0.73	0.80	0.66	.67
CSWI 2022—> 2023 Indicators	Predictive	0.41	0.46	0.23	.37
Another Identification (n = 54)	**Validity**	**0-100**	**EWB**	**PWB**	**SWB**
2022 CSWI —> 2022 Indicators	Criterion	0.75	0.71	0.64	.57
2023 CSWI —> 2023 Indicators	Criterion	0.53	0.72	0.68	.61
CSWI 2022—> 2023 Indicators	Predictive	0.35	0.55	0.57	.49

Explanation Note. 0-100 = All things considered, how satisfied are you with your life as a whole? 0 equals completely dissatisfied, and 100 equals completely satisfied. EWB = Mental Health Continuum-Short Form Emotional Well-being. PWB = Mental Health Continuum-Short Form Psychological Well-being. SWB = Social Well-Being. CSWI = California Student Wellness Index = Mental Health Continuum-Short Form Social Well-being.

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Concurrent and Predictive Stability Coefficients

The students' CSWI scores were compared to their responses on related well-being measures to further assess their usefulness as a general indicator of students' well-being. The 2022 CSWI and the 2022 CSWI indicator scores were compared to their corresponding validity measures, as shown in **SR3.6**. The same-year validity coefficients (r = .67–.74) indicate that all students' CSWI scores were strongly and consistently related to their overall life satisfaction and emotional, psychological, and social well-being measures. These validity coefficients provide evidence that the CSWI measures central aspects of students' social-emotional health. The same supportive validity coefficient pattern was identified across students' gender identification preferences.

CSWI Concurrent Validity with Flourishing and Languishing Well-Being

The MHC-SF is a measurement that can be scored as a criterion, not a normative distribution (see **SR3.7**). It includes five items for Social Well-Being (SWB) and six for Psychological Well-Being (PWB). Students who answer "almost every day" or "every day" to a majority (six or eleven) of these items represent flourishing well-being. Conversely, students who answer "never" or "once or twice" to a majority (six or eleven) of these items represent languishing well-being. **SR3.7** displays the percentage of students with flourishing level responses for each CSWI value, while **SR3.8** shows the percentage of students with languishing level responses. The graphs demonstrate that the CSWI values at the continuum ends effectively differentiate between students reporting flourishing and languishing well-being.

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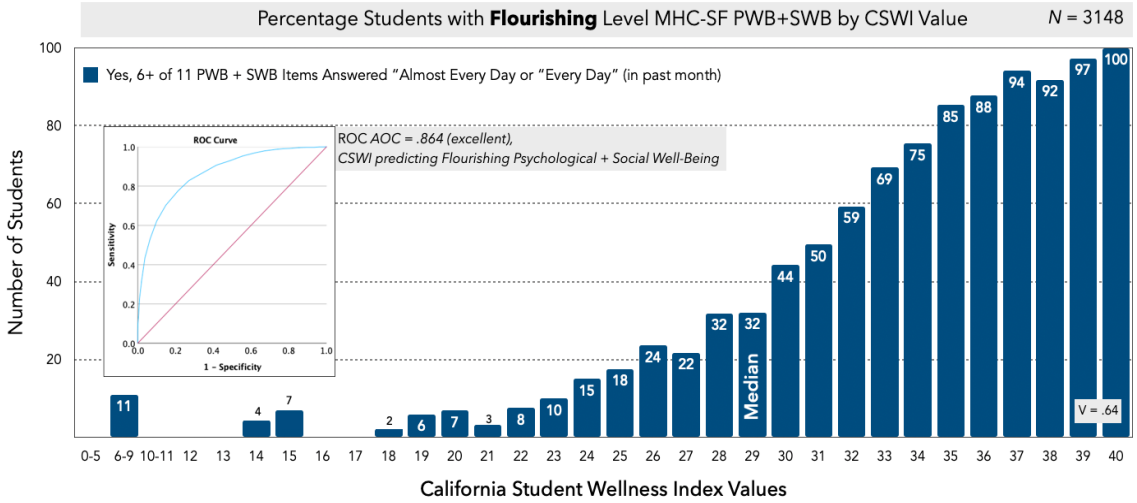
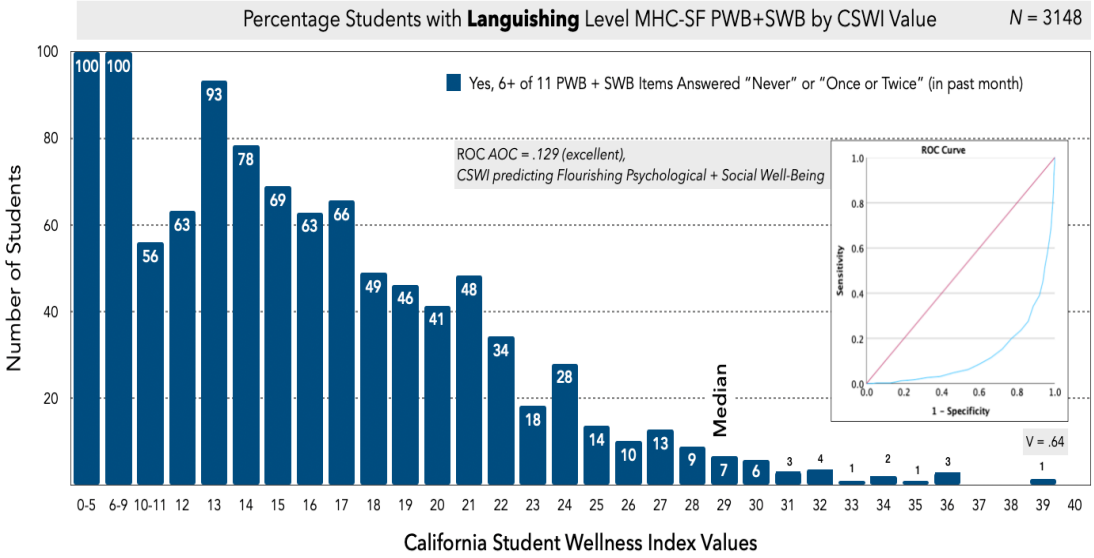
Explanation Note: The data in the chart indicates a strong connection between CSWI scores and "flourishing" well-being. For instance, more than 59% of students who scored 32 or higher on the CSWI reported experiencing flourishing well-being. Conversely, very few students with CSWI scores below 25 reported the same level of well-being. To qualify as "flourishing," individuals must answer at least 6 out of 11 items as "almost every day" or "every day" in the past month.



SR 3.7 Flourishing Social + Psychological Well-Being by CSWI Values

Explanation Note. The chart shows a strong correlation between CSWI scores and reports of languishing well-being. For example, over 60% of students who scored ≤ 17 on the CSWI reported languishing well-being, while very few students with CSWI scores above 25 reported the same. The criteria for "Languishing" are answering at least 6 or 11 items as "never" or "once or twice (in the past month)."



SR 3.8. Languishing Social + Psychological Well-Being by CSWI Values

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SECTION 4: CSWI MULTI-TIER APPLICATIONS

Evaluating and Interpreting CSWI Responses

The report section displays figures **SR4.1–SR4.11**, illustrating the connection between CSWI scores and other important student-reported information. This information includes chronic sadness, suicidal ideation, school belonging, and optimism, with a descriptive note accompanying each chart or graph. The purpose of this information is twofold. First, it confirms the CSWI score by showing that students with higher CSWI scores are less likely to report negative experiences such as chronic sadness or suicidal ideation and more likely to report positive psychological states like school belonging and optimism. Second, the large sample size of CSWI responses allows for determining the percentage of students expressing negative and positive sentiments, which is crucial for evaluating a student's comparative strength-risk profile. However, it is essential to note that this research is a starting point, and further exploration is needed to understand associations with other adolescent assets and resources.

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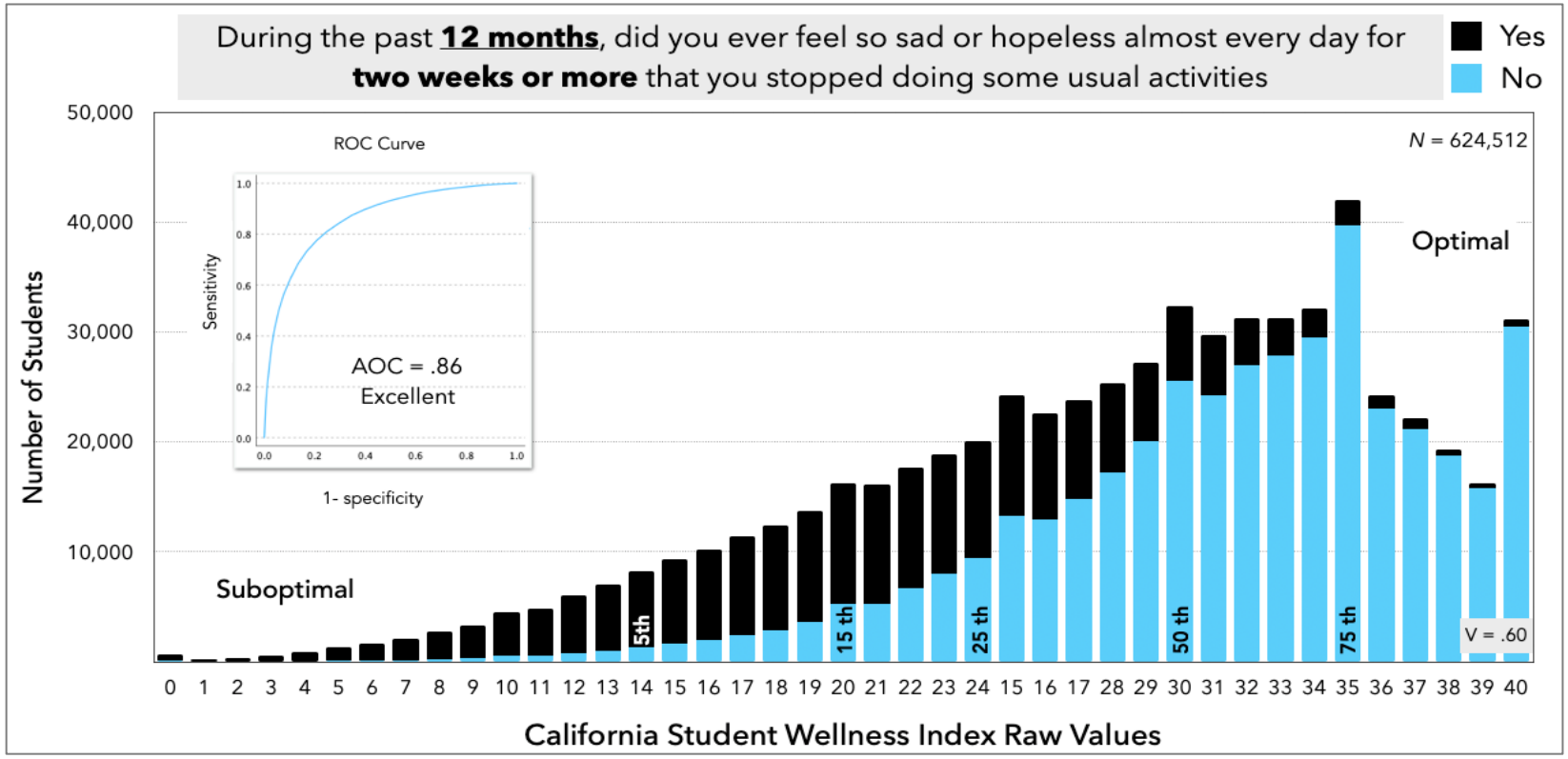
SR4.1 Past–Year Chronic Sadness

Explanation Note. The chart illustrates the correlation between CSWI values and students who reported chronic sadness in the past year. The blue bars (no) represent the number of students who answered "no," while the **black bars (yes)** represent the number of students who answered "yes." More than half of the students who scored ≤12 on the CSWI reported having chronic sadness. We conducted a Receiver Operating Characteristic (ROC) analysis to assess the predictive power of the CSWI values in determining the presence of chronic sadness. The Area Under the Curve (AUC) value of 0.86 indicates that the CSWI has excellent predictive ability, striking a balance between sensitivity and specificity. Lastly, we found that approximately 34% of all students reported experiencing chronic sadness in the past year.



SR 4.1. Number Reporting Chronic Sadness for Each CSWI Value, ROC Curve Analysis

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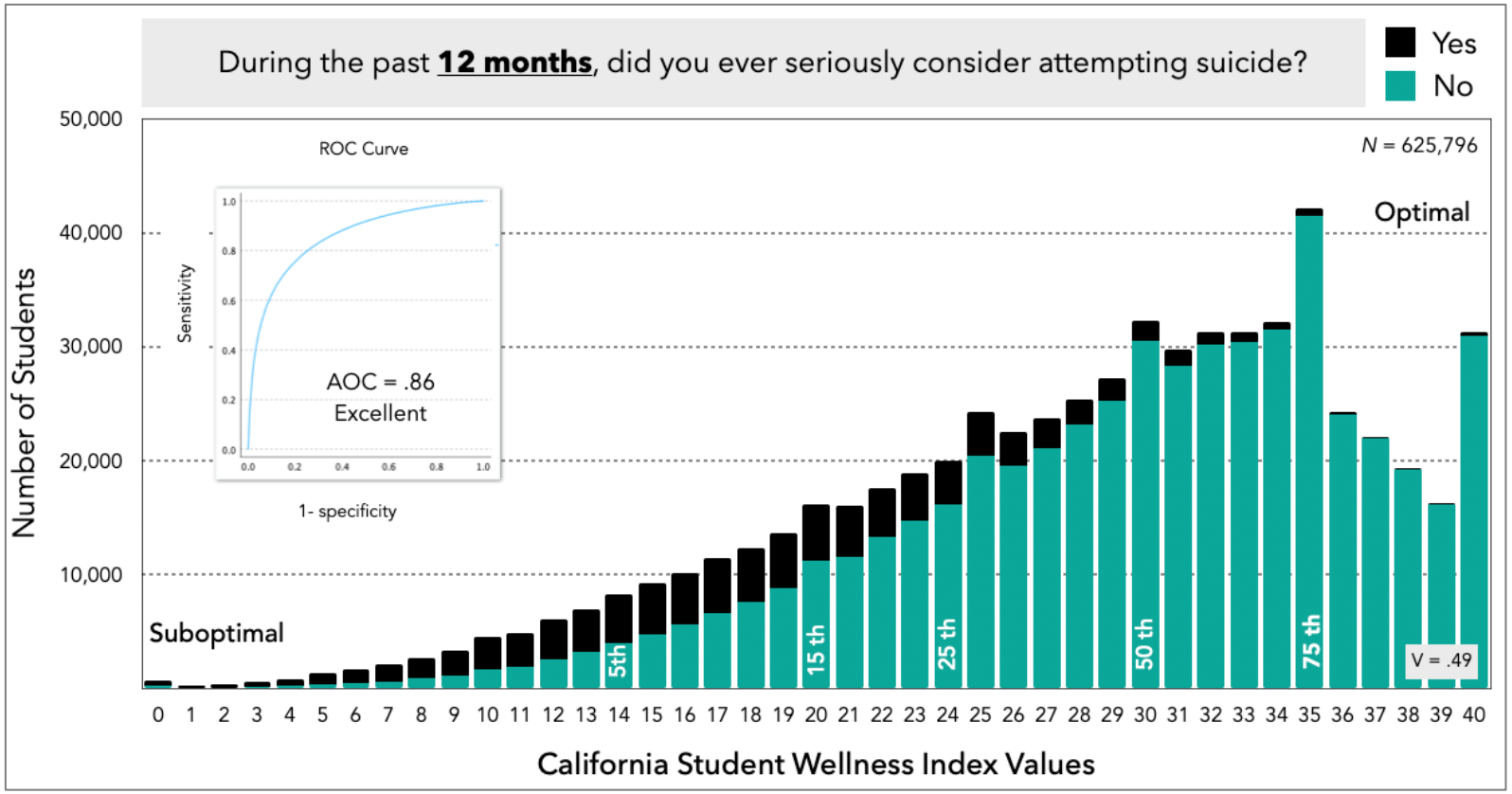
SR4.2 Past–Year Suicidal Ideation

Explanation Note. The chart illustrates the relationship between CSWI values and students reporting past-year suicidal ideation. The green bars (no) represent the number of students answering "no," while the **black bars (yes)** represent the number of students answering "yes." It is noteworthy that over half of the students with CSWI scores of 12 or less reported suicidal ideation. An analysis using Receiver Operating Characteristic (ROC) examined how the CSWI values predicted suicidal ideation (0/1). The Area Under the Curve (AUC) value of 0.86 indicates that the CSWI predicts suicidal ideation effectively, striking a balance between sensitivity and specificity. Furthermore, 16% of all students reported past-year suicidal ideation.



SR 4.2 Number Reporting Suicidal Ideation for Each CSWI Value, ROC Curve Analysis

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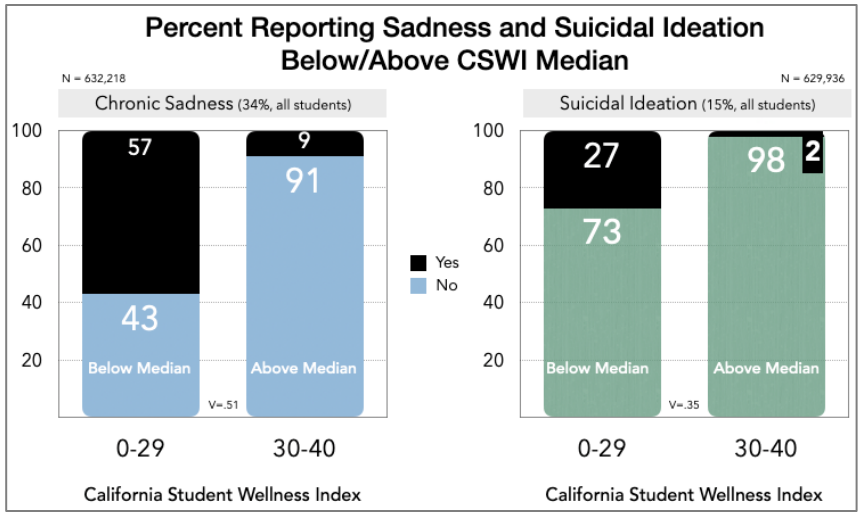
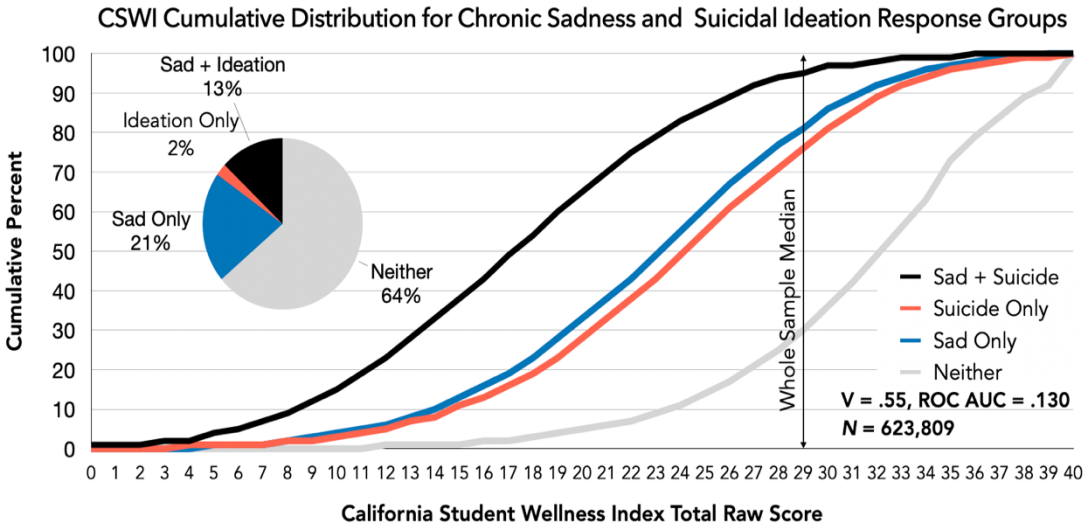
SR4.3 & 4.4 Past–Year Sadness + Suicidal Ideation

Explanation Note. This chart shows data similar to the information provided in **SR4.3** and **SR4.4**. It displays the percentage of students who reported chronic sadness and suicidal thoughts, categorized by CSWI scores below and above the distribution median. For example, 57% of students with CSWI scores below the median reported chronic sadness.

SR 4.3 Number, Percentage Sadness/Suicidal Ideation Below/Above CSWI Median





SR 4.4 CSWI Cumulative Distributions Sadness, Suicidal Ideation Groups

Explanation Note. The chart shows the relationship between CSWI values and students' responses to questions about chronic sadness and suicidal ideation. The combined responses created four groups: neither (64.2%), sadness only (21.1%), ideation only (2.3%), and sadness + ideation (12.4%). One in 8 students reported "yes" to both sadness and suicidal ideation, indicating potentially more profound social-emotional health challenges. Students reporting sadness and ideation had much lower CSWI values (90% below the whole sample median) than the other groups. An analysis using the CSWI values as the predictor returned an AUC of 0.13.

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SR4.5 Students Reporting Past-Year Chronic Sadness by CSWI Response Cell

CSWI BMSLSS by SEDS Dual Factor Model Response Array Cell Percentage Reporting Chronic Sadness				Distress																
				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	N/1000
Life Satisfaction	Very Satisfied	BMSLSS	25	2	4	6	10	15	20	25	31	37	44	50					56	81
			24	1	3	5	8	13	20	24	28									42
			23	2	3	6	9	14	20	27	35	40	49	52						54
			22	2	4	7	11	17	22	30	38	43	53	56	60					64
		75th	21	3	5	8	12	18	25	31	39	47	55	61	62	72				73
	Satisfied		20	3	6	9	13	19	25	32	40	48	61	62	67	72	71	81	74	129
		50th	19	4	6	11	16	21	28	36	45	53	62	66	70	76	81	86	85	85
			18	5	8	13	18	25	33	41	49	57	67	70	77	78	80	87	85	74
			17	6	9	15	20	29	37	42	51	59	69	73	75	80	83	89	88	66
			16	8	11	16	24	31	38	46	55	61	72	75	80	82	86	91	89	57
	Little Satisfied	25th	15	7	13	19	25	34	39	50	55	64	74	76	80	84	88	90	87	59
			14	10	15	23	29	35	45	53	61	70	75	78	82	86	89	92	91	42
			13	12	20	22	30	39	47	52	62	69	77	81	85	86	90	92	93	35
			12	15	20	25	33	40	46	58	63	72	77	82	85	90	91	93	93	30
			11	16	17	19	32	44	50	56	66	73	80	83	85	89	92	94	92	23
	Little Dissatisfied		10	10	19	26	32	41	41	58	70	70	80	80	85	90	91	94	90	25
			9	16				51	55	63	69	76	83	83	87	91	92	94	94	15
			8						54	62	64	74	82	84	88	92	94	96	94	12
			7									78	79	86	90	89	93	95	94	9
			6											87	90	92	95	97	96	7
	Dissatisfied		5	12															92	7
			4																95	3
			3																96	2
			2																	1
			1																	1
	Very Dissatisfied	BMSLSS	0																81	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

Explanation Note. The chart depicts how CSWI response patterns relate to reported chronic sadness in the past year. Each cell in the chart displays the percentage of students with a specific CSWI response pattern who also reported chronic sadness. For example, 85% of students with the BMSLLS (10)–SEDS (11) response pattern reported chronic sadness, while only 13% of students with the BMSLLS (20)–SEDS (3) reported chronic sadness. Cells shaded in grey represent values ≤ 34%, the average for the entire sample (N = 625,796). Blank cells indicate low endorsement, with less than 1 per 1000 students.

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SR4.6 Students Reporting Past-Year Suicidal Ideation by CSWI Response Cell

Explanation Note. This chart shows the association between CSWI response patterns and reported past-year suicidal ideation. The value in each cell is the percentage of students with that specific CSWI response pattern to also report suicidal ideation—to illustrate—56% of the students with the BMSLLS (10)–SEDS (12) response pattern reported suicidal ideation. Only 2% of students with the BMSLLS (18)—SEDS (1) reported suicidal ideation. Shaded cell values are ≤ 16%, the average for the entire sample (N = 624,512). Blank cells had low endorsement, with less than 1 per 1000 students.

CSWI BMSLSS by SEDS Dual Factor Model Response Array Cell Percentage Reporting Suicidal Ideation				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	*N/1000*
Life Satisfaction	Very Satisfied	BMSLSS	25	1	1	1	2	3	6	6	10	11	14	15					34	81
			24	1	1	1	1	3	4	5	6									42
			23	1	1	1	2	3	5	5	6	8	12	16						54
			22	1	1	1	2	4	4	6	9	10	10	15	17					64
		75th	21	1	1	2	3	4	6	8	10	12	11	17	18					73
	Satisfied		20	1	1	2	3	5	6	8	10	13	16	19	22	23	28	33	34	129
		50th	19	1	1	2	3	5	8	10	13	16	19	22	25	25	30	36	39	85
			18	2	2	4	5	6	9	12	15	17	21	27	29	31	34	39	42	74
			17	3	3	5	6	8	11	14	18	22	24	28	33	37	41	43	48	66
			16	4	4	4	7	10	12	17	19	23	28	32	37	41	41	49	50	57
	Little Satisfied	25th	15	3	3	5	9	11	14	18	22	26	31	35	37	43	46	52	52	59
			14	5	5	8	10	12	16	20	25	28	35	38	42	48	49	54	57	42
			13	6	6	9	12	15	19	21	27	31	37	40	43	51	51	56	57	35
			12	8	8	8	12	16	18	25	28	34	39	45	49	54	57	61	62	30
			11	7	7	10	12	18	21	24	32	34	42	45	50	55	60	65	64	23
	Little Dissatisfied		10	5	5	9	17	17	18	27	34	38	43	45	54	56	63	65	66	25
			9	10				22	24	32	37	42	46	50	57	59	63	72	68	15
			8						28	33	33	41	48	51	61	67	70	71	70	12
			7									45	51	53	61	61	68	68	72	9
			6											53	61	66	73	75	76	7
	Dissatisfied		5	15															77	7
			4																74	3
			3																78	2
			2																	1
			1																	1
	Very Dissatisfied	BMSLSS	0																70	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

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SR4.7 Students Reporting High Level of School Belonging by CSWI Response Cell

Explanation Note. This chart displays the connection between CSWI response patterns and reported school belonging. Each cell shows the percentage of students with a specific CSWI response pattern who also reported high school belonging levels. For example, 52% of the students with the BMSLLS (20)–SEDS (10) response pattern indicated a high sense of school belonging. The item measured school belonging with the statement, "I feel like I am part of this school." Students who answered "pretty much true" or "very much true" were considered to have a high sense of school belonging. Shaded cell values are equal to or greater than 48%, the average for the entire sample (N = 622,211). Blank cells had low endorsement, with less than 1 in 1,000 students.

CSWI BMSLSS by SEDS Dual Factor Model Response Array Cell Percentage Reporting Higher School Belonging				Distress																
				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	N/1000
Life Satisfaction	Very Satisfied	BMSLSS	25	79	85	83	79	78	71	73	74	69	66	70					47	81
			24	81	83	83	79	80	78	79	75									42
			23	72	76	76	74	72	71	70	70	71	72	66						54
			22	66	71	71	70	68	64	65	64	64	64	62	63					64
		75th	21	61	64	65	63	62	60	61	60	59	58	59	61	55				73
	Satisfied		20	57	61	60	59	58	56	55	55	55	53	52	51	50	56	56	41	129
		50th	19	47	52	51	51	51	49	49	49	48	48	49	50	49	49	47	44	85
			18	38	44	44	44	44	44	43	43	43	43	42	41	43	40	43	43	74
			17	34	38	39	38	38	37	37	39	37	39	37	41	38	37	40	34	66
			16	29	33	35	34	35	34	35	35	35	32	33	34	35	37	39	31	57
	Little Satisfied	25th	15	30	34	34	31	31	30	30	31	32	31	30	30	29	30	31	27	59
			14	27	28	29	29	27	28	28	27	26	27	26	28	28	27	28	25	42
			13	23	34	27	26	25	22	25	25	25	24	23	25	25	24	23	22	35
			12	23	24	27	23	23	22	21	21	23	22	22	22	20	22	20	20	30
			11	21	29	22	22	18	22	21	18	19	19	20	21	21	19	22	19	23
	Little Dissatisfied		10	24	32	25	24	22	20	20	19	19	19	19	17	19	17	16	19	25
			9	21				19	15	19	18	16	17	15	16	14	16	15	15	15
			8						20	17	14	14	17	13	13	17	12	13	13	12
			7									11	11	12	12	14	13	10	11	9
			6											10	10	11	11	13	11	7
	Dissatisfied		5	34															9	7
			4																6	3
			3																7	2
			2																	1
			1																	1
	Very Dissatisfied	BMSLSS	0																12	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

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SR4.8 Students Reporting High Level of Optimism by CSWI Response Cell

Explanation Note. This chart displays the connection between CSWI response patterns and reported optimism. The number in each cell represents the percentage of students with that specific CSWI response pattern who also reported high optimism. For example, 78% of students with the BMSLLS (22)–SEDS (2) response pattern indicated that they experienced optimism. This item measured optimism based on the statement, 'I usually expect to have a good day.' Students who answered 'pretty much true' or 'very much true' were considered to have a higher sense of optimism. Shaded cell values are equal to or greater than 47%, the average for the entire sample (N = 625,780). Blank cells had low endorsement, with less than 1 in 1000 students.

CSWI BMSLSS by SEDS Dual Factor Model Response Array Cell Percentage Reporting Higher Optimism				Distress																
				Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
				SEDS	25th			50th				75th							SEDS	
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	N/1000
Life Satisfaction	Very Satisfied	BMSLSS	25	77	88	86	82	78	69	75	71	71	69	71					74	81
			24	89	90	88	85	83	78	81	74									42
			23	82	85	81	78	76	73	72	69	69	64	62						54
			22	77	80	78	72	68	64	63	61	59	59	58	60					64
		75th	21	71	74	71	66	62	57	57	56	53	52	49	49	49				73
	Satisfied		20	59	66	63	59	54	48	50	47	45	41	45	43	41	39	48	40	129
		50th	19	57	58	55	51	48	43	45	42	39	38	35	34	35	33	36	35	85
			18	47	52	48	46	42	39	37	37	34	31	30	27	29	26	30	27	74
			17	42	47	42	40	37	32	31	29	30	27	26	27	25	23	21	21	66
			16	34	39	37	34	33	29	29	27	24	24	22	21	20	22	24	18	57
	Little Satisfied	25th	15	28	37	32	31	29	23	26	24	22	20	20	18	17	16	17	18	59
			14	27	36	33	28	26	23	23	23	19	20	17	17	16	14	16	13	42
			13	26	32	30	24	24	20	22	21	18	16	15	15	16	13	13	12	35
			12	23	31	30	27	21	19	19	17	16	15	12	12	11	12	11	11	30
			11	20	32	23	22	21	17	18	15	16	13	11	11	12	11	8	10	23
	Little Dissatisfied		10	16	30	27	22	21	14	18	16	13	15	15	10	11	10	11	12	25
			9	18				23	14	14	13	13	11	10	9	8	7	7	9	15
			8						17	13	11	11	11	10	8	7	8	8	7	12
			7									12	9	9	7	11	5	5	6	9
			6											9	5	5	7	8	6	7
	Dissatisfied		5	19															9	7
			4																5	3
			3																5	2
			2																	1
			1																	1
	Very Dissatisfied	BMSLSS	0																22	4
			N/1000	199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

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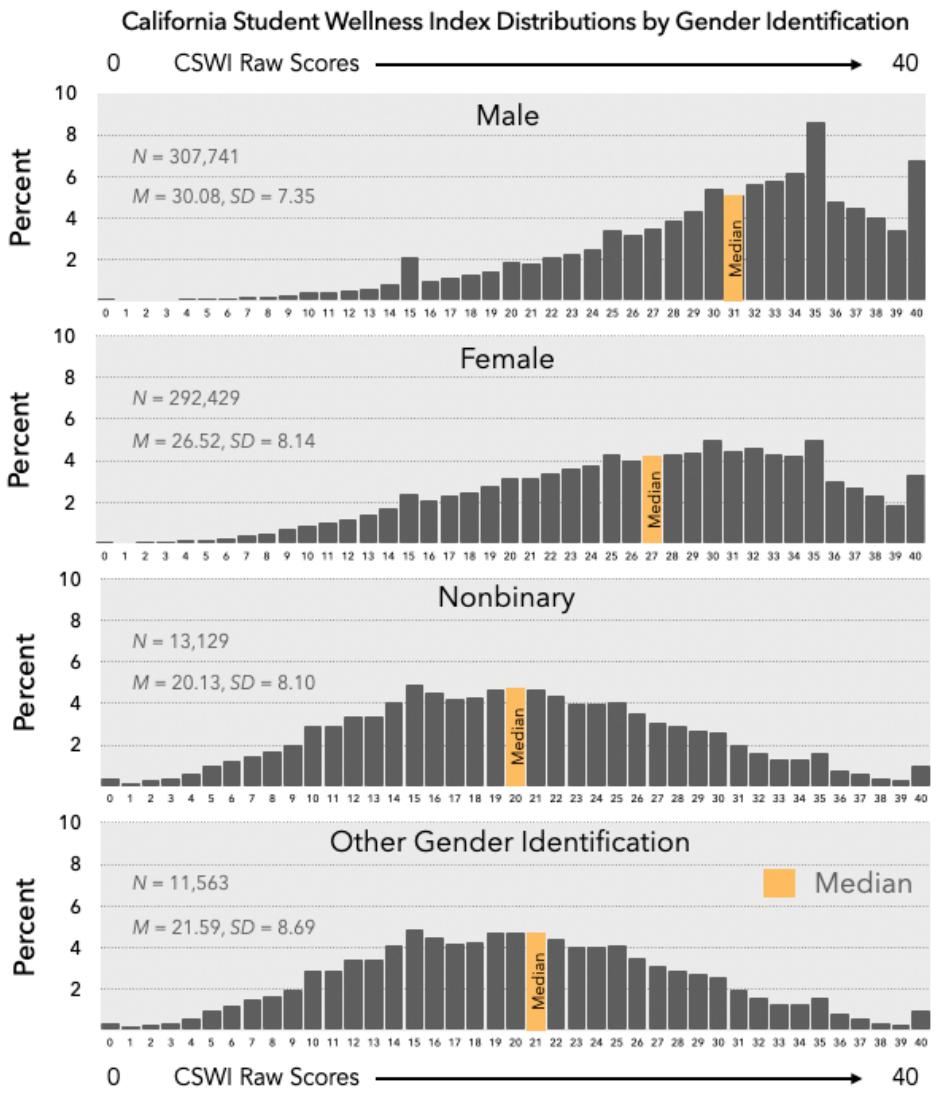
SR4.9 Interpretation Notes for Gender Identification

Explanation Note. This chart illustrates the distribution of CSWI scores by student gender identification. There were significant variations in mean CSWI scores based on gender identification (eta2 = .075): Males > Females > Other gender identification > nonbinary. [3]



SR 4.9 CSWI Distributions—Means and Medians by Gender Identification

[3] The Health Behavior in School-aged Children Survey (2021/2022) found that female adolescents (38%) were more likely than males (23%) to report that the COVID-19 pandemic had a negative impact on their mental health (Cosma et al., 2023). According to the U.S. Centers for Disease Control (2023), 41% of females experienced poor mental health in the past month, compared to 29% of males. These findings align with reports by other researchers (e.g., Campbell et al., 2022). However, this technical guide does not explore the factors associated with gender-related wellness reports. This is an important topic that requires further investigation.

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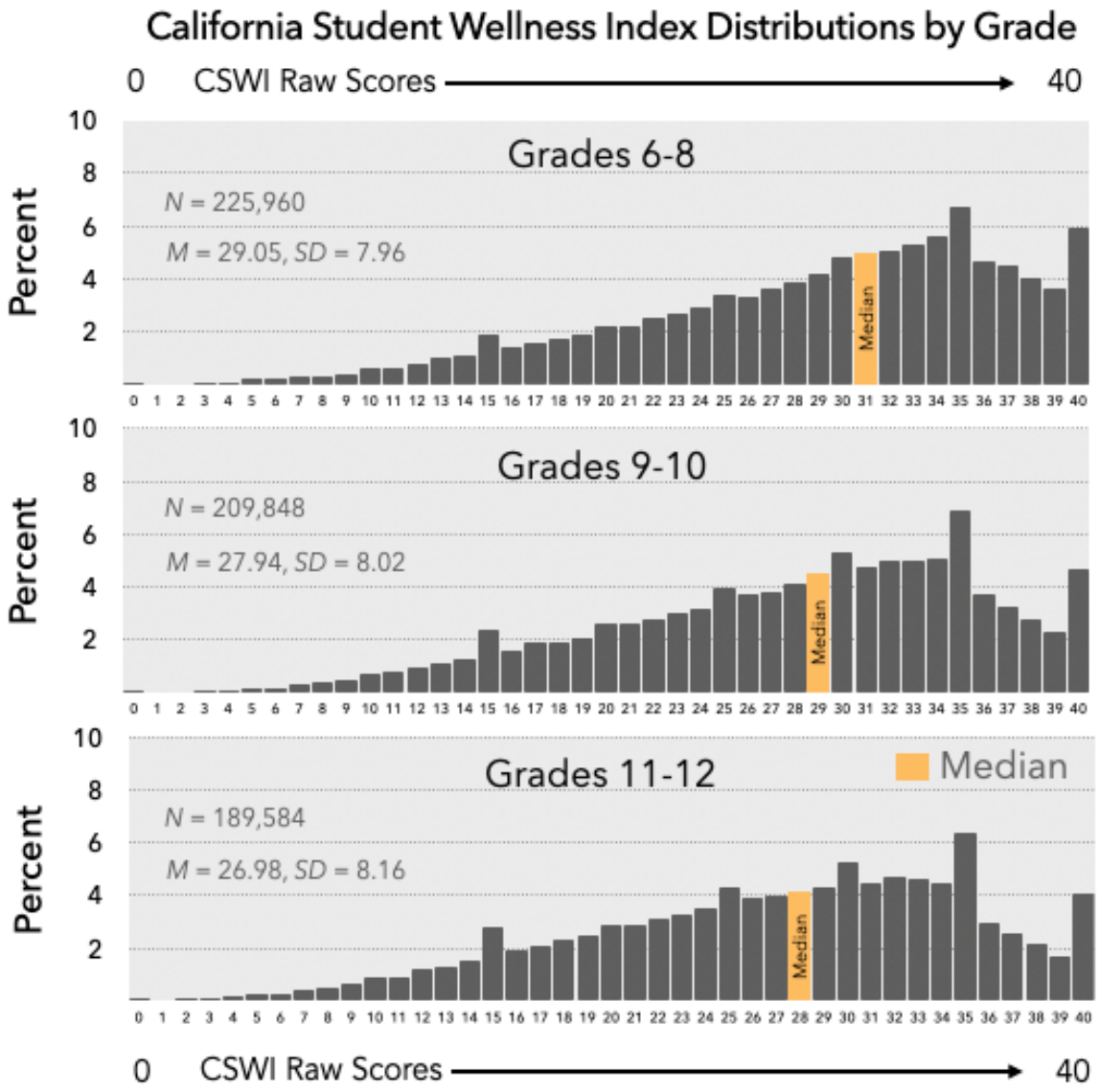
SR4.10 Interpretation Notes for Age

Explanation Note. The chart shows the distribution of CSWI scores based on student grade levels. The average CSWI student scores varied only slightly (eta2 = .011). Middle school students had somewhat higher scores compared to high school students. The decrease in life satisfaction from early to late adolescence aligns with previous research (e.g., Aymerich et al., 2020; Orben et al., 2022).



SR 4.10 CSWI Distribution—Means and Medians by Grade Level

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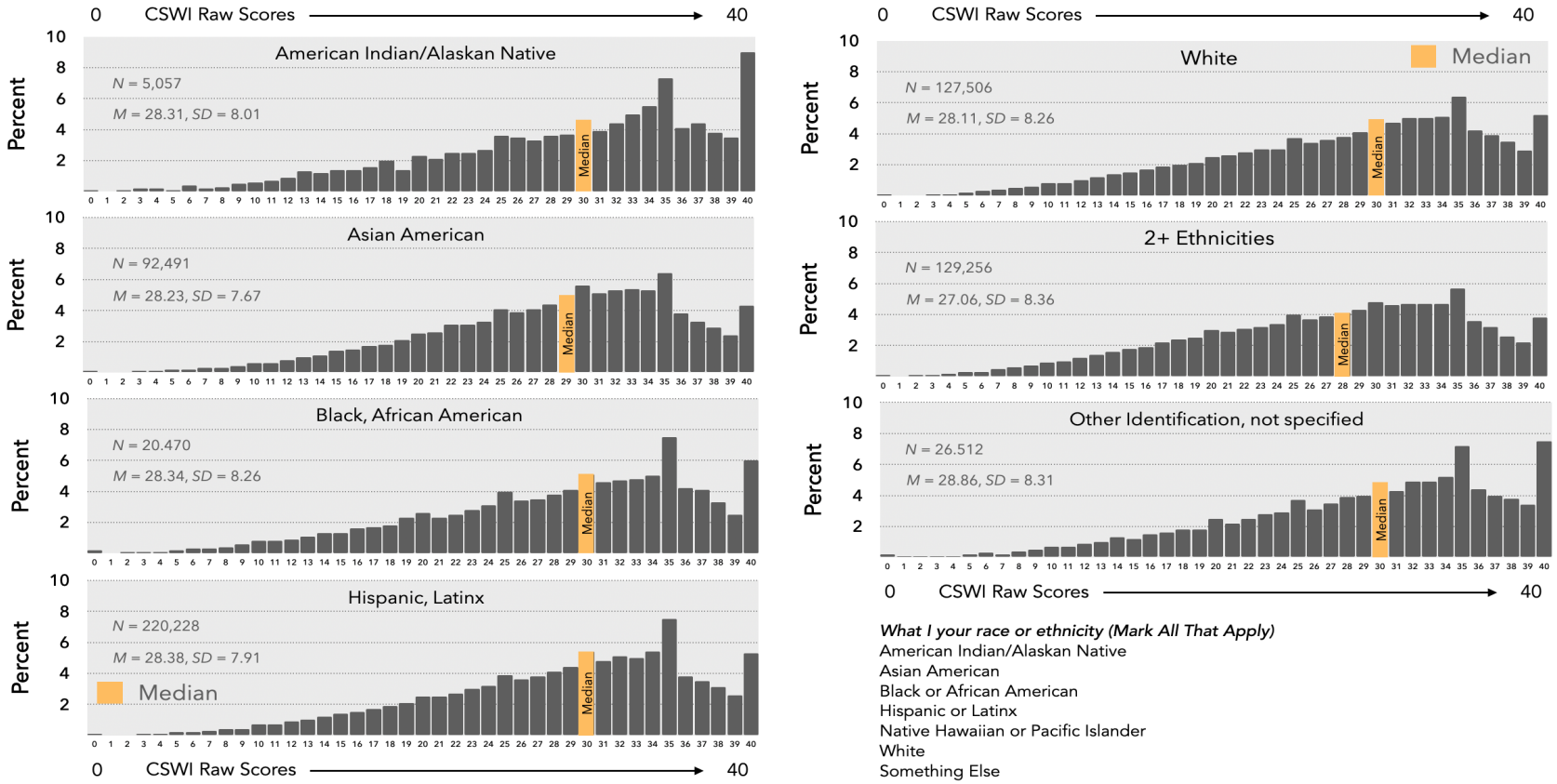
SR4.11 Interpretation Notes for Ethnic Identification

Explanation Note. The students' ethnicity was determined by asking them to identify the group or groups they belong to (**SR4.11**). Approximately half of the students identified as Hispanic/Latinx, which aligns with the statewide school-age population. Reflecting California's diverse multiethnic population, the next largest group of students identified with two or more ethnic groups. CSWI values were consistent across all ethnic groups.

California Student Wellness Index Distributions by Ethnic Identification



***SR 4.11** CSWI Distributions—Means, and Medians by Ethnicity*

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SECTION 5: ASSESSMENT AND COUNSELING RESOURCES FOR TIER 2 AND 3 SERVICES

Assessing Life Satisfaction

Multidimensional Student Life Satisfaction Scale (MSLSS)

The MSLSS is a 40-item Multidimensional Student Life Satisfaction Scale. It includes positive and negative worded items related to various aspects of the BMSLSS's five domains (Huebner et al., 1998). The instrument was designed and validated for students in Grades 3 through 12 (Gilman et al., 2000; Huebner & Gilman, 2002). It provides a Tier 2 follow-up assessment in a counseling interview to engage the student in a deeper discussion of their life satisfaction domains.

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Response options: 0 = *Strongly Disagree*, 1 = *Moderately Disagree*, 2 = *Mildly Agree*, 3 = *Mildly Agree*, 4 – *Moderately Agree*, and 5 = *Strongly Agree*.

Sample Items. MSLSS Description and MSLSS Items

- Family (8 items): I like spending time with my parents.
- Friends (9 items): I have a lot of fun with my friends.
- School (8 items): School is interesting.
- Living Environment (9 items): There are lots of fun things to do where I live.
- Self (7 items): There are lots of things I can do well.

Assessing Dual-Factor Mental Well-Being

Mental Health Continuum-Short Form

Corey Keyes' model of mental health focuses on three key dimensions: emotional, psychological, and social well-being (Keyes, 2002, 2005). Emotional well-being involves feeling positive and satisfied with one's life in the past month. Psychological well-being comprises six distinct components: self-acceptance, personal growth, purpose in life, positive relationships with others, autonomy, and environmental mastery. These components collectively reflect an individual's efforts to reach their maximum potential (Keyes, 2002). On the other hand, social well-being considers an individual's perception of their relationship with and engagement in society (Keyes, 1998, 2016). This dimension includes social integration, social contribution, social coherence, social actualization, and social acceptance. Positive mental health includes frequent experiences of positive psychological states and a low occurrence of mental distress symptoms (Keyes, 2005, 2006).

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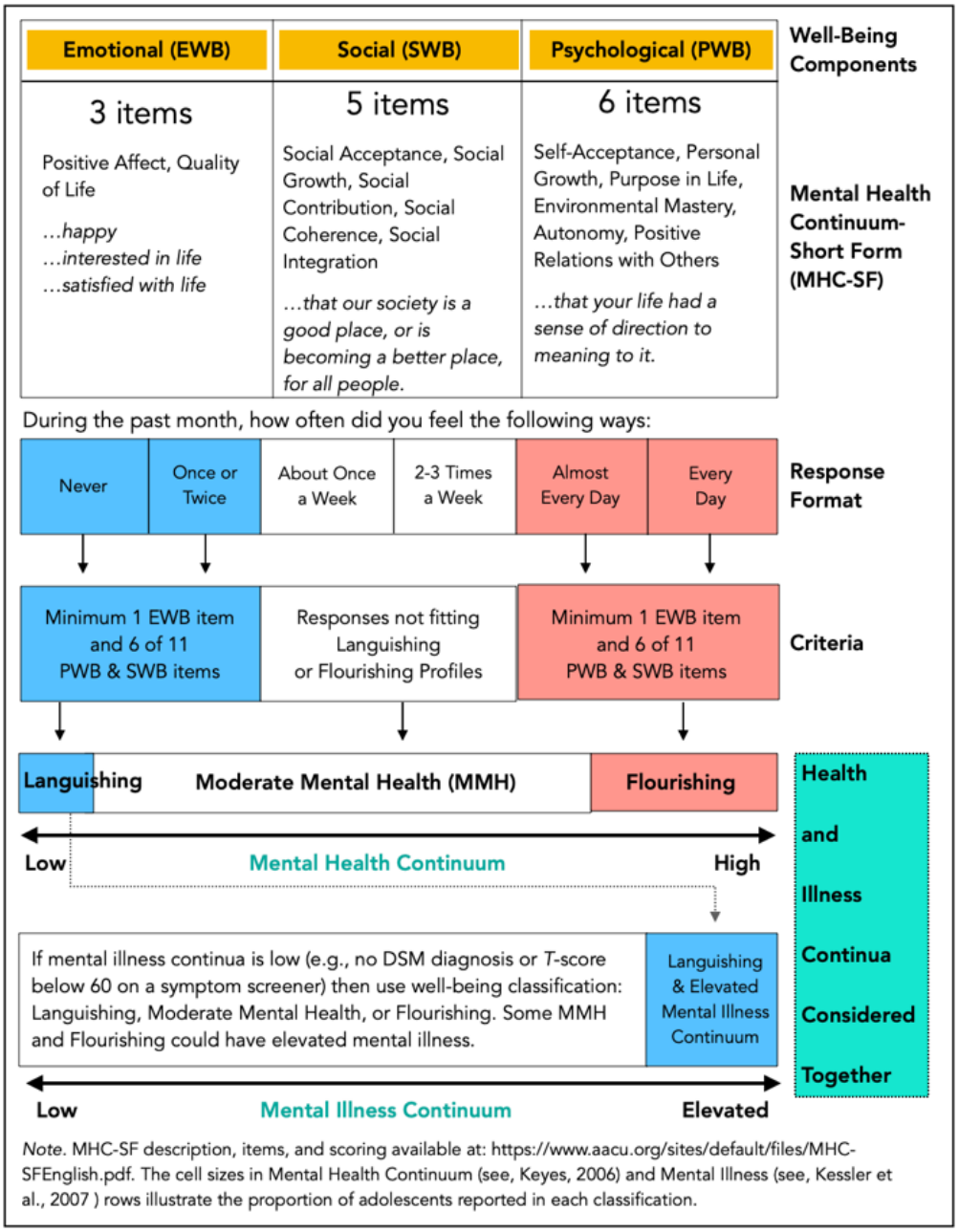
SR 5.1. MHC-SF Scoring Procedures



Note. MHC-SF description, items, and scoring available at: https://www.aacu.org/sites/default/files/MHC-SFEnglish.pdf. The cell sizes in Mental Health Continuum (see, Keyes, 2006) and Mental Illness (see, Kessler et al., 2007) rows illustrate the proportion of adolescents reported in each classification.

The Mental Health Continuum-Short Form (MHC-SF) considers the related but separate influences of an ill-being continuum and a subjective well-being continuum. The ill-being continuum is based on the Diagnostic and Statistical Manual criteria for major depressive episodes, which requires symptoms of anhedonia and malfunctioning for diagnosis. The well-being continuum considers the presence of hedonic experiences and eudemonic positive psychological functioning (Keyes, 2002). This measure is an adaptation of the 40-item MHC-

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Long Form (MHC-LF). Corey Keyes' mental health model includes three primary dimensions: emotional, psychological, and social well-being (Keyes, 2002, 2005).

Emotional well-being refers to experiencing positivity and contentment with one's life over the past month. Psychological well-being consists of six distinct elements: self-acceptance, personal growth, purpose in life, positive relationships with others, autonomy, and environmental mastery. These components collectively signify an individual's pursuit of personal fulfillment (Keyes, 2002).

On the other hand, social well-being involves an individual's perception of their connection to and involvement in society (Keyes, 1998, 2016). This dimension encompasses social integration, social contribution, social coherence, social actualization, and social acceptance. Positive mental health is characterized by frequent experiences of positive psychological states and a low incidence of mental distress symptoms (Keyes, 2005, 2006). Refer to **SR5.1** for MHC-SF scoring procedures. MHC-SF **Description** and **Form.**

Kessler Psychological Distress Scale

Kessler, a researcher from Harvard University, developed the Kessler Symptom Scale (K10) in 2003. This scale is used worldwide to support mental health research and increase understanding of the prevalence of mental health disorders. The National Comorbidity Survey Replication and the World Mental Health Initiative utilize the K10 to assess emotional distress symptoms. Various studies, including works by Ferro (2019), Green et al. (2010), Kessler et al. (2002), Menton et al. (2016), and Smout (2019) have evaluated the efficacy of the Kessler Symptom Scale.

The K10 survey is utilized to assess anxiety and depressive symptoms in adolescents. For instance, a sample question about depressive symptoms is, “During the last 30 days, how often did you feel hopeless?” Similarly, a sample question about anxiety symptoms is, “During the last 30 days, how often did you feel so nervous that you could not calm down?” The survey employs a five-point frequency response format, ranging from 1 (none of the time) to 5 (all the time).

The K10 offers self-administered and interview-administered forms, providing flexibility as a Tier 2 measure for school-based mental well-being, including access items and scoring rules. (**access Items** and **scoring rules**).

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Using the K10 with the MHC-SF

Combining the K10 symptoms and the MHC-SF well-being information allows for a comprehensive assessment. When a student demonstrates high well-being and low symptomatology, they are considered to have complete mental health. Conversely, if a student displays a languishing response pattern and elevated K10 scores, they are deemed to be struggling with their mental health.

Assessing Positive Assets & Resources

Extensive research dating back to Rutter's work in 1979 has found connections between the development and persistence of mental health issues in childhood, adolescence, and early adulthood and various risk factors such as environmental, personal, and family factors, as well as trauma experiences. This research suggests that young individuals exposed to more risk factors are more likely to have poorer mental health outcomes than their peers. As the number of risk factors increases, the likelihood of developing mental health problems also increases (Goebel et al., 2021). Longitudinal research also indicates that when youth experience multiple complex symptoms, their development trajectory is less favorable, leading to persistent mental health concerns (Goebel et al., 2022). Comorbidity is the term used to describe the combination of environmental, social, and psychological risk factors.

The MHC-SF and K10 provide valuable information about the risk factors experienced by adolescents. However, it's important to consider positive and strength-focused measures such as personal values, mindset, and quality of life indicators to fully understand an adolescent's experiences. According to Masten (2002) and Rutter (1979), these developmental protective factors complement and provide additional insights into an adolescent's experiences. The SEHS-S-2020, part of the CalSCHLS Social Emotional Health Module, is one such measure that focuses on social and emotional health and can be used as a CSWI concurrent validity measure.

Social Emotional Health Survey-Secondary-2020 (SEHS-S-2020)

The SEHS-S-2020 assessment tool measures the Covitality construct, which refers to the positive mental health resulting from the interplay of multiple positive psychological building blocks. This principle considers that psychosocial strengths are adaptive self-schemas linked to youth resilience and thriving development. However, these psychosocial strengths have the

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most impact when they co-occur in harmony rather than being isolated strengths (Furlong et al., 2020; Paz & Kim, 2022), that is, "the whole is greater than the sum of its parts."

By fostering the balanced development of multiple core psychosocial strengths such as gratitude, empathy, and persistence, adolescents can promote positive interpersonal transactions within their socio-ecological systems, contributing to optimal developmental outcomes. The 36-item Social Emotional Health Survey-Secondary (SEHS-S-2020) has 12 subscales measuring psychosocial strengths derived from the social-emotional learning (SEL) and positive youth development (PYD) literature (Furlong, Dowdy et al., 2021; Furlong, Paz et al., 2023; Hinton et al., 2022; Ito et al., 2015; Piqueras et al., 2019; You, Dowdy et al., 2014; You, Furlong et al., 2015). The 12 subdomains are associated with four correlated positive social-emotional health domains that assess the higher-order Covitality construct.

The first domain, Belief in Self, consists of three subscales grounded in constructs from self-determination theory literature: self-efficacy, self-awareness, and persistence. The second domain, Belief in Others, comprises three subscales derived from constructs found in childhood resilience literature: school support, peer support, and family support. The third domain, Emotional Competence, consists of three subscales based on constructs drawn from the SEL scholarship: emotion regulation, empathy, and behavioral self-control. The final domain, Engaged Living, comprises three subscales grounded in constructs derived from the positive youth psychology literature: gratitude, zest, and optimism.

Research supports the cumulative resilience advantage as measured by the 12 SEHS-S subdomains. Students with more SEHS-S strengths report positive mental well-being and low emotional risk behaviors (Lenzi, Dowdy, et al., 2015; Lenzi, Furlong, et al., 2015; Moore et al., 2019). The SEHS-S research grounding and positive asset emphasis provide an alternative to emotional problem-focused universal school mental health screeners.

The following pages contain the SEHS-S-2020 student response form and scoring procedures. There are also forms to record subdomain profiles, which provide comparative normative information based on data collected from 94,134 California students in Grades 7-12. For more information about the 12 SEHS domains, please refer to Covitality Counseling and Classroom Resources.

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SR5.2 Social Emotional Health Survey-Secondary (SEHS-S-2020)

Directions: You are invited to complete this survey about how you have felt over the past few weeks. Read each item and choose the response that best describes you. There are no right or wrong answers. You can skip questions you don't want to answer.		Not at all true 1	A little true 2	Pretty much true 3	Very much true 4
1	I can work out my problems.	Not at all true	A little true	Pretty much true	Very much true
2	I can do most things if I try.	Not at all true	A little true	Pretty much true	Very much true
3	There are many things that I do well.	Not at all true	A little true	Pretty much true	Very much true
4	There is a purpose to my life.	Not at all true	A little true	Pretty much true	Very much true
5	I understand why I do what I do.	Not at all true	A little true	Pretty much true	Very much true
6	I understand my moods and feelings.	Not at all true	A little true	Pretty much true	Very much true
7	When I do not understand something, I ask the teacher again and again until I understand.	Not at all true	A little true	Pretty much true	Very much true
8	I try to answer all the questions asked in class.	Not at all true	A little true	Pretty much true	Very much true
9	When I try to solve a math problem, I will not stop until I find a final solution.	Not at all true	A little true	Pretty much true	Very much true
10	At my school, there is a teacher or some other adult who always wants me to do my best.	Not at all true	A little true	Pretty much true	Very much true
11	At my school, there is a teacher or some other adult who listens to me when I have something to say.	Not at all true	A little true	Pretty much true	Very much true
12	At my school, there is a teacher or some other adult who believes that I will be a success.	Not at all true	A little true	Pretty much true	Very much true
13	My family members really help and support one another.	Not at all true	A little true	Pretty much true	Very much true
14	My family really gets along well with each other.	Not at all true	A little true	Pretty much true	Very much true
15	There is a feeling of togetherness in my family.	Not at all true	A little true	Pretty much true	Very much true
16	I have a friend my age who really cares about me.	Not at all true	A little true	Pretty much true	Very much true
17	I have a friend my age who talks with me about my problems.	Not at all true	A little true	Pretty much true	Very much true

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Directions: You are invited to complete this survey about how you have felt over the past few weeks. Read each item and choose the response that best describes you. There are no right or wrong answers. You can skip questions you don't want to answer.		Not at all true 1	A little true 2	Pretty much true 3	Very much true 4
18	I have a friend my age who helps me when I'm having a hard time.	Not at all true	A little true	Pretty much true	Very much true
19	I accept responsibility for my actions.	Not at all true	A little true	Pretty much true	Very much true
20	When I make a mistake, I admit it.	Not at all true	A little true	Pretty much true	Very much true
21	I can deal with being told no.	Not at all true	A little true	Pretty much true	Very much true
22	I feel bad when someone gets their feelings hurt.	Not at all true	A little true	Pretty much true	Very much true
23	I try to understand what other people go through.	Not at all true	A little true	Pretty much true	Very much true
24	I try to understand how other people feel and think.	Not at all true	A little true	Pretty much true	Very much true
25	I can wait for what I want.	Not at all true	A little true	Pretty much true	Very much true
26	I don't bother others when they are busy.	Not at all true	A little true	Pretty much true	Very much true
27	I think before I act.	Not at all true	A little true	Pretty much true	Very much true
28	Each day, I look forward to having a lot of fun.	Not at all true	A little true	Pretty much true	Very much true
29	I usually expect to have a good day.	Not at all true	A little true	Pretty much true	Very much true
30	Overall, I expect more good things to happen to me than bad things.	Not at all true	A little true	Pretty much true	Very much true
31	On most days, I am grateful	Not at all true	A little true	Pretty much true	Very much true
32	On most days, I feel energetic	Not at all true	A little true	Pretty much true	Very much true
33	On most days, I feel appreciative	Not at all true	A little true	Pretty much true	Very much true
34	On most days, I feel energetic	Not at all true	A little true	Pretty much true	Very much true
35	On most days, I feel active	Not at all true	A little true	Pretty much true	Very much true
36	On most days, I feel enthusiastic	Not at all true	A little true	Pretty much true	Very much true

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SR5.3 Social Emotional Health Survey–Secondary (SEHS-S-2020) Items and Scoring

1. I can work out my problems. (0-3)	
2. I can do most things if I try. (0-3)	
3. There are many things that I do well. (0-3)	
Self-Efficacy (Sum 0-9)	
4. There is a purpose to my life. (0-3)	
5. I understand my moods and feelings. (0-3)	
6. I understand why I do what I do. (0-3)	
Self-Awareness (Sum 0-9)	
7. When I do not understand something, I ask the teacher again and again until I understand. (0-3)	
8. I try to answer all the questions asked in class. (0-3)	
9. When I try to solve a math problem, I will not stop until I find a final solution. (0-3)	
Persistence (Sum 0-9)	
BELIEF IN SELF (SUM 0-27)	
10. At my school, there is a teacher or some other adult who always wants me to do my best. (0-3)	
11. At my school, there is a teacher or some other adult who listens to me when I have something to say. (0-3)	
12. At my school, there is a teacher or some other adult who believes that I will be a success.	
School Support (Sum 0-9)	
13. My family members really help and support one another. (0-3)	
14. There is a feeling of togetherness in my family. (0-3)	
15. My family really gets along well with each other. (0-3)	
Family Support (Sum 0-9)	
16. I have a friend my age who really cares about me. (0-3)	
17. I have a friend my age who talks with me about my problems. (0-3)	
18. I have a friend my age who helps me when I'm having a hard time. (0-3)	
Peer Support (Sum 0-9)	
BELIEF IN OTHERS (SUM 0-27)	
19. I accept responsibility for my actions. (0-3)	
20. When I make a mistake, I admit it. (0-3)	
21. I can deal with being told no. (0-3)	
EMOTIONAL REGULATION (SUM 0-9)	
22. I feel bad when someone gets their feelings hurt. (0-3)	
23. I try to understand what other people go through. (0-3)	
24. I try to understand how other people feel and think. (0-3)	
EMPATHY (SUM 0-9)	
25. I can wait for what I want. (0-3)	
26. I don't bother others when they are busy. (0-3)	
27. I think before I act. (0-3)	
SELF-CONTROL (SUM 0-9)	
EMOTIONAL COMPETENCE (SUM 0-27)	
28. Each day, I look forward to having a lot of fun. (0-3)	
29. I usually expect to have a good day. (0-3)	
30. Overall, I expect more good things to happen to me than bad things. (0-3)	
OPTIMISM (SUM 0-9)	
31. On most days, I feel grateful. (0-3)	
32. On most days, I feel thankful. (0-3)	
33. On most days, I feel appreciative. (0-3)	
GRATITUDE (SUM 0-9)	
34. On most days, I feel energetic. (0-3)	
35. On most days, I feel active. (0-3)	
36. On most days, I feel enthusiastic. (0-3)	
ZEST (SUM 0-9)	

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ENGAGED LIVING (SUM 0-27)

Domain Summary Scores	
Belief in Self (Sum = 0-27)	
Belief in Others (Sum = 0-27)	
Emotional Competence (Sum = 0-27)	
Engaged Living (Sum = 0-27)	
Total Covitality (Sum 0-108)	

SEHS-S-2020 Combined Covitality Score

Range: 0-108, Mean = 70.16, Md = 71, SD = 20.96, *N* = 94,134, alpha = .95

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SR5.4 Social Emotional Health Survey-Secondary-2020 Subdomains, Domains, and Covitality Record Sheet

Green shading shows values between the 25th and 75th Percentiles

	Self-Efficacy	Self-Awareness	Persist	Peer	School	Family	Empathy	Emotional Regulation	Self-Control	Optimism	Gratitude	Zest	
9													9
8													8
7													7
6													6
5													5
4													4
3													3
2													2
1													1
0													0

Social Emotional Health Survey-Secondary-2020 Domains

	Belief in Self	Belief in Others	Emotional Competence	Engaged Living	
27					27
26					26
25					25
24					24
23					23
22					22
21					21
20					20
19					19
18					18
17					17
16					16
15					15
14					14
13					13
12					12
11					11
10					10
9					9
8					8
7					7
6					6
5					5
4					4
3					3
2					2
1					1
0					0

Covitality Total Score Raw Values and Percentile Rank Zones

	5th %tile		15th %tile		25th %tile		50th %tile		75th %tile		85th %tile		95th %tile	
0-34	35	36-47	48	49-56	57	58-70	71	72-84	85	86-92	93	94-102	103	104-108

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SECTION 6: ANSWERING YOUR CSWI QUESTIONS

The following sections address frequently asked questions about evaluating, using, and interpreting the CSWI. For any other questions, please contact us via email.

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How can I use the CSWI?

As a Global Wellness Index [4]

California developed the California Student Wellness Index (CSWI) to measure positive mental wellness in adolescents. The pandemic accelerated the effort to validate these measures and compare the mental health of adolescents before and after the pandemic. Based on a large sample size, the median raw score of adolescents' responses was 29 on a scale of 0-40. The CSWI can now be used to assess adolescent mental wellness changes and evaluate the effectiveness of programs and services.

As a Research Study Variable

The CSWI can be utilized as an indicator of well-being in formal studies to evaluate various latent traits and the effectiveness of Tier 1 and Tier 2 prevention and intervention programs.

As a Standard Classification for DFM Studies

DFM studies can improve sample comparability by using the CSWI 10 items and a standard cut score to categorize participants into four groups. This approach simplifies classification assessment and enables cross-sample comparisons without limiting the use of other measures.

For School Universal Student Wellness Surveys

Some school districts use the CSWI to understand student wellness. Annual or semiannual surveys let students share their experiences and concerns, helping tailor support programs to meet their emotional and behavioral health needs. Lower CSWI scores prompt personalized support, and the reports provide valuable information to enhance student well-being.

For Individual Student Wellness Assessments and Monitoring

In special education, the CSWI assesses students' social and emotional well-being, identifies those needing further evaluation, and monitors progress toward meeting behavioral objectives.

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[4] We understand that the CSWI focuses solely on the experiences of adolescents experiencing internal distress. However, some DFM studies have created a combined indicator for internalizing and externalizing distress, as Petersen et al. (2022) demonstrated. We have prioritized self-reported internalizing distress as the most pressing issue for monitoring school wellness while considering concerns about adding items to a population-based survey. For further details, please refer to Furlong et al. (2022).

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What are some considerations for CSWI research applications? [5]

The CSWI was created as a quick and effective method for evaluating the well-being of adolescents. However, it's important to note that this tool focuses solely on positive mental health and may not fully assess all the factors that impact adolescent well-being.

In our analysis of straight-line responders, we noticed two distinct response patterns. We identified the "complete mental health responders" (5-0 pattern) and the "troubled responders" (0-3 pattern) who tended to shift their responses from high to low across the options. In contrast, the "symptomatic-but-content" responders (5-3 pattern) consistently chose the highest response option for all ten items. This unusual response pattern was found in less than 0.1% of students and did not significantly affect the overall distribution. Additionally, the "languishing" responders (0-0 pattern) consistently selected the lowest response option across all ten items. They comprised 75% of students who chose zero response on all life satisfaction items in the sample. It's important to note that students with a 00-response pattern did not report high levels of vulnerable risk-related experiences.

We omitted 0-0 responders in the psychometric analyses for the California Student Wellness Index. However, school-based Wellness Care Teams should still identify these students and follow up to determine if they reported accurately or did not provide well-thought-out answers. In some cases, researchers may consider these students as outliers and choose to exclude them from their sample. For example, Cummins' work with the Personal Well-being Index (Cummins & Lau, 2023) follows a standard scoring procedure that excludes

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[5] King (2022) introduced an approach to calculate a continuous mental health score based on the dual factor conceptualization. This measure drew from the 2014 Canadian Health Behavior in School-aged Children study, a comprehensive investigation involving students aged 11 to 15. The single-dimensional continuous mental health index used complex computational procedures combining scores from six well-being and psychopathology constructs. The measures included Cantrell's single-item life satisfaction, a single item to gauge positive affect (I am full of energy), and two items to develop a measure of adverse effect (I often feel lonely and helpless). Two items used to measure negative affect, part of the well-being score, could have served as symptomatology indicators. This observation underscores a recurring issue in dual-factor model research, where potential symptom indicators are incorporated into other measures, necessitating a closer examination of the model's construct validity.

Psychopathology was measured using a four-item index that asked students about their experiences over the past six months: feeling low depression, irritability, or bad temper, feeling nervous, and difficulty sleeping, with a 5-point frequency response scale. Externalizing symptoms were assessed and mainly focused on risk-taking behaviors. These not necessarily clinical symptoms included alcohol consumption, lifetime drunkenness history, smoking history, use of alternative tobacco products, physical fighting, caffeinated energy drink consumption, and riding a bicycle without a helmet.

King (2022) derived a continuous dual-factor mental health index involving score transformations and complex computational algorithms that combined scores from six different constructs. The highest psychopathology standardized score (internalizing or externalizing) was subtracted from the composite subjective well-being standardized score, producing a composite T-score ($M = 50$, $SD = 10$).

Researchers will want to consider further King's (2021) approach to compute a single-point continuous DFM mental health index. However, the complexity of developing such an index and the low face validity in interpreting the clinical meaning of the values limit its practical applicability for school mental health professionals, underscoring the need for further examination and illustration of this approach. Contrasted with King's approach, CSWI's advantages are that it does not involve score transformations multi-step computational algorithm, and mental health professionals and parents easily interpret its index value.

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students who provide all high or all low straight-line responses to limit introducing unnecessary variation into the sample.

In our research, we investigated how the exclusion or inclusion of students who provided straight-line responses affected the central tendency of the CSWI distribution. After removing the four types of straight-line responders, the average CSWI was 27.45, with a standard deviation of 7.77. This average compares to a mean of 28.05 with a standard deviation of 8.18 when including straight-line responders. Interestingly, the 25th, 50th, and 75th percentiles and the median remained the same.

The complete mental health (5-0) responders are the only straight-line responses likely to be encountered in most research samples. We included all students who answered the BMSLSS and SEDS items because the overall sample distribution and psychometric characteristics did not change when excluded. In addition, when students participate in online wellness screening, the example from this large California sample is that various types of response biases will manifest in a small percentage of students (Furlong et al., 2018). Limited investment in taking the survey had no meaningful impact on the general patterns found. Additionally, when the CSWI is used to screen for and monitor individual students, school care providers can now be alerted that languishing (0-0) response patterns might reflect low survey investment and not deeper concerns. Our final observation is that when schools invite students to participate in a school-wide self-reflection process that includes completing a self-report survey, a few students will decide they do not want to participate. Some will participate but only provide partially thoughtful responses. However, most students respond sincerely, giving schools a valuable source of information to evaluate students' social-emotional patterns and consider strategies designed to enhance all students' flourishing well-being.

Health Behaviour in School-Age Children Studies

Researchers interested in using a combined dual-factor index score in their work can also consider the Health Behaviour in School-Aged Children (HBSC) survey, an initiative by the World Health Organization that has been conducted since 1982 and is currently used in 50 countries. This survey comprehensively assesses various aspects of adolescent health, including global life satisfaction (Cantril Life Satisfaction Ladder), self-efficacy, loneliness, mental health complaints (irritability, sleep difficulties, nervousness, feeling low), and the WHO-5 Well-Being index (a five-item measure of past-week positive experiences, e.g., “I have been active and vigorous”). The most recent 2020-21 survey, the HBSC, included more specific mental health and well-being information, ensuring researchers access to the most up-to-date data. Three slightly different approaches using data from Canada, the United States, and Italy have investigated brief dual-factor model procedures.

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HSBC Canadian Sample

The HBSC items offer researchers a robust method for creating a well-being index, as demonstrated by King and colleagues in 2021 and 2022. They selected 18 items from the 2014 Canadian Adolescent Health Behavior Survey to measure subjective well-being. These items included the Cantril life satisfaction ladder (Cantril, 1965), one positive effect item, and two negative effect items. In addition, they assessed internalizing symptoms over the past six months using four items and evaluated eight externalizing risk behavior items. The scores from these items were combined to form a comprehensive index. Lower scores indicate lower subjective well-being and higher levels of emotional distress and symptoms, while higher scores indicate higher subjective well-being without symptomatology.

HSBC United States Sample

Renshaw and Bolognino (2017) observed that schools often do not utilize the two-factor mental health model because of difficulties consistently measuring both dimensions. This inconsistency makes it challenging to conduct schoolwide wellness screening or use the measures as a population-level index. To address this issue, the authors examined the psychometric properties of a brief two-dimensional model scale called the Psychological Wellbeing and Distress Screener (PWDS). They used HSBC Psychological Well-being and distress items from the 2009/10 HBS United States sample. They found that these ten items formed negatively correlated dimensions, with an acceptable fit for a two-factor model and general measurement invariance for gender, grade, race/ethnicity, and place of residence. The new index significantly predicted students' responses to the Cantril Global Life Satisfaction ladder item. The PWDS has been cross-validated with a sample of Turkish adolescents (Renshaw & Arslan, 2019) and used in other studies (Arslan, 2018; Arslan & Coşkun, 2022; Jiang et al., 2021; Zhang et al., 2020).

HSBC Italian Sample

The study by Bersia et al. (2022) analyzed the responses of Italian adolescents in the HSBC 2010, 2014, and 2018 surveys. The researchers used a dual-factor mental health framework to assess the 165,000 student responses. They measured positive well-being using the Cantril life satisfaction item, which is rated on a scale of 0-10 and evaluated distress using the HSBC five-item psychological complaints scale. According to their findings, Bersia et al. categorized scores of 0-6 on the Cantril life satisfaction item as indicative of nonoptimal positive well-being and scores of 7-10 as representing optimal well-being. Similarly, scores of 0-8 on the psychological complaints scale indicated low distress, while 9-16 indicated elevated distress. The study is notable for examining the joint distribution of life satisfaction and distress. Still, it

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did not combine these scores into an index or report the percentages classified into the four dual-factor distribution areas.

SR6.1 HBSC 2017/18 Data Set Illustration

We used an HBSC dataset to study the effectiveness of our dual-factor model approach in creating an index for adolescent well-being. We analyzed responses from adolescents in 45 countries, totaling 225,218 participants, with 48.8% male and 51.2% female. The participants completed the HBSC survey in 2017 (17.8%), 2018 (79.2%), and 2019 (3.0%). Following the guidance of King (2021), Renshaw and Bellagio (2017), and Brescia (2022), we selected items that measure wellness and distress components within a dual-factor framework. This analysis illustrates the approach used in developing the CSWI and can be helpful for researchers and others interested in well-being indices.

The Cantril (1965) life satisfaction item (**SR6.1**) measures well-being. It asks participants to imagine a ladder with steps numbered from 0 to 10. The top of the ladder, marked as "10", represents the best possible life, while the bottom, marked as "0", represents the worst possible life. Participants rate their overall life satisfaction by indicating which step of the ladder they feel they currently stand on. The response scale ranges from 0 (worst possible life) to 10 (best possible life).

The distress dimension scale assessed adolescents' internalizing experiences using four questions, as shown in **SR6.2.** The questions asked respondents how often they had felt low, experienced irritability or bad temper, felt nervous, and had difficulties falling asleep in the last six months. Respondents selected a response option for each question based on the frequency of their experiences, with options ranging from 0 (about every day) to 4 (rarely or never).

The HBSC responses, which were negatively skewed, indicated that higher scores were associated with lower distress. On average, most adolescents reported experiencing distress about once a month or less over the past six months. The four-item scale has a reliability coefficient (alpha) of 0.75. Similar to the procedures used to create the combined index for the CSWI, we added the raw scores for life satisfaction distribution. **SR6.3** displays the joint distribution for the combined Wellness index .coefficient (alpha) of 0.75. Similar to the procedures used to create the combined index for the CSWI, we added the raw scores for life satisfaction distribution. **SR6.3** displays the joint distribution for the combined Wellness index.

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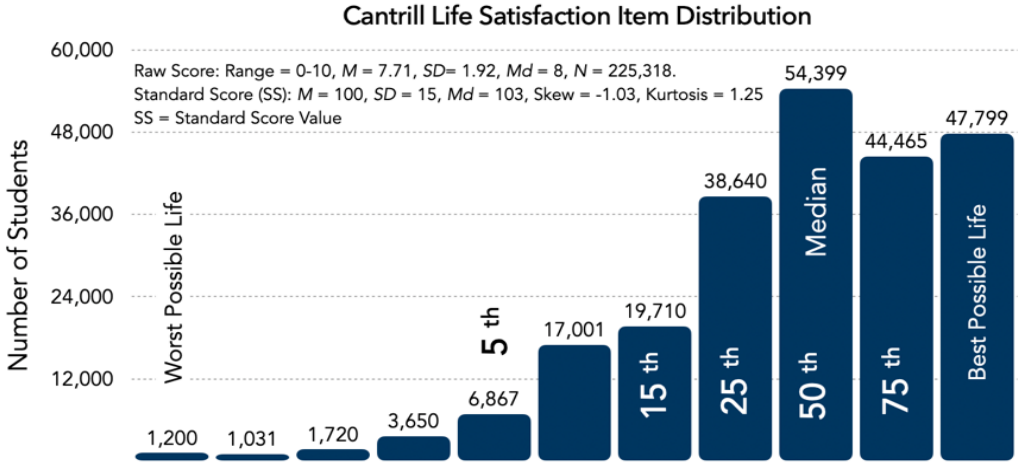
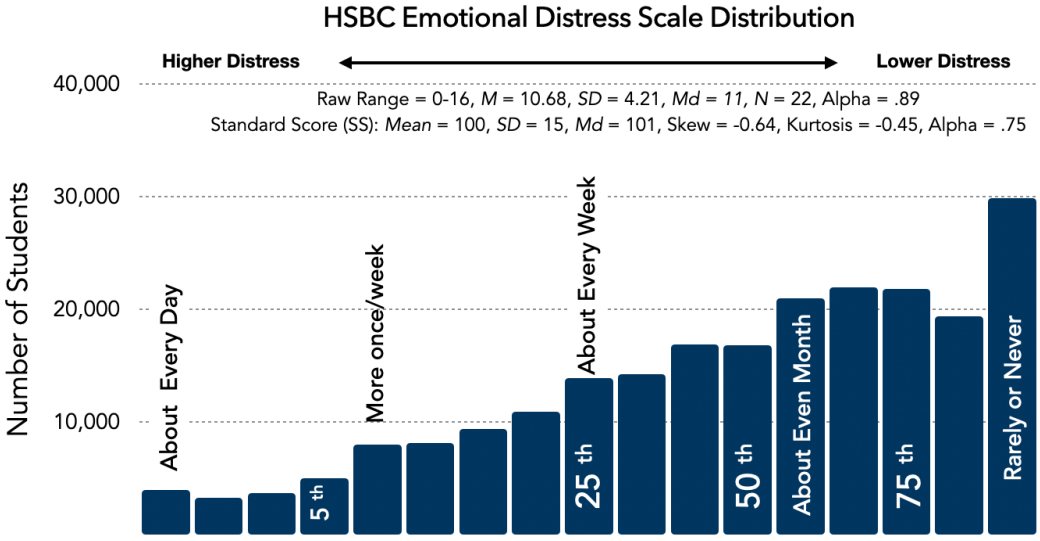


Raw	0	1	2	3	4	5	6	7	8	9	10
SS	39	48	55	63	71	79	86	94	102	110	118

SR6.1 . HBSC Cantril Life Satisfaction Distribution



Raw	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SS	62	66	69	73	76	80	83	87	90	94	98	101	105	108	112	115	119

SR6.2 . HBSC Emotional Distress Distribution

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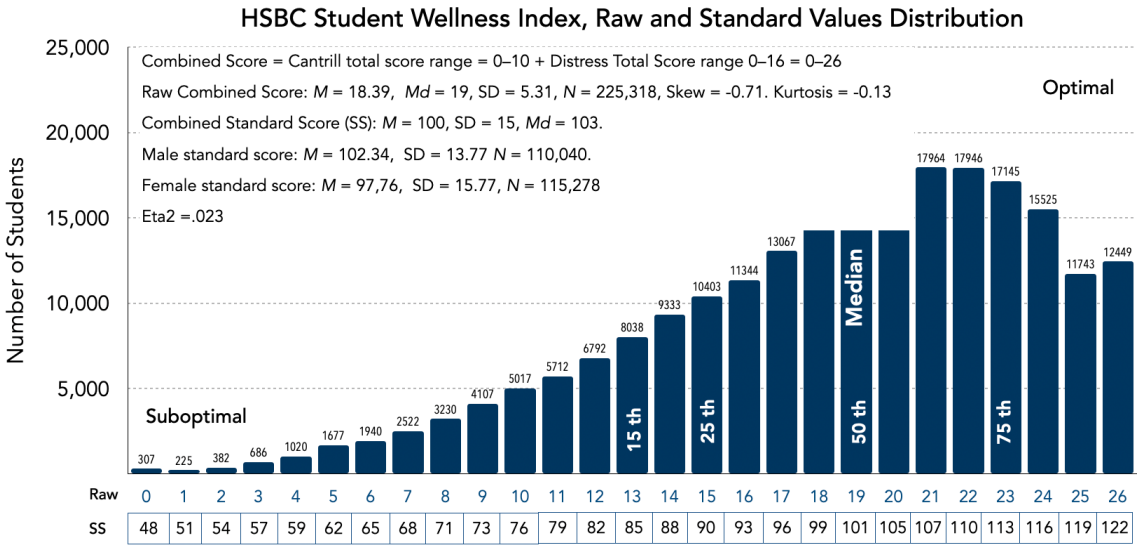

SR6.3 HSBC Student Wellness Index Illustration

Dual-Factor Model Protective Factors

The study by Jefferies et al. (2023) demonstrates the use of brief wellness and distress measures through a DFM (Dual-Factor Model) approach. The research involved 3841 school-aged children aged 11 to 14 in England. The participants completed the seven-item scale of the Short Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009). Scores of 7-20 indicated lower well-being (24%), and 21-35 indicated higher well-being (76%). They also responded to the emotional symptoms subscale of the Strength and Difficulty Questionnaire (Goodman, 1997), which measures internalizing symptoms. Scores ranged from 0-4, indicating minimal problems (59%), and 5-10, indicating elevated problems (41%). The researchers used score cut points to create four DFM groups and examined differences in protective factor networks, including empathy, emotional regulation, problem-solving, goals and aspirations, school participation, and home and community participation. This study contributes to DFM research by enhancing understanding of the developmental paths of the four DFM groups and associated risk and protective factors.

Should the CSWI use gender-specific norms?

The analysis of the data showed a significant link between gender identification and the overall social and emotional well-being of students. Male-identifying students reported higher life satisfaction and lower emotional distress compared to other gender-identification groups, as shown in **SR4.9.** One challenge when comparing all students' responses to the normative data

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for the CSWI is that it could potentially identify more nonmale-identifying individuals as having poorer mental health and well-being. One potential solution to this disparity could be establishing separate norms for each gender-identifying group. It will be essential to consider the overall gender differences when interpreting the results for specific students.

It is crucial to determine if specific gender-specific norms are needed. For example, nonbinary identifying students typically report a median life satisfaction level of "mildly satisfied" compared to male students who report a median level of "moderately satisfied." From a clinical standpoint, adjusting norms for nonbinary students to reflect a "mildly satisfied" level may not be beneficial. It is essential to use a population-wide distribution to identify well-being inequities associated with student intersectionality, aligning with UNESCO's belief that every child has the right to positive mental health and well-being. Evaluating equity involves considering whether every child falls within the distribution compared to all their peers. When interpreting students' mental health, it is crucial to consider inequities in their social contexts and life experiences and assess the supportive capacity of their school and community.

Can I use CSWI as a schoolwide wellness monitor?

Hoover and Bostic (2021) stress the significance of wellness screening as a critical component of mental health promotion programs in Gold Star Schools. Schools utilize the CSWI items to monitor, support, and address students' emotional and behavioral needs. **SR6.4** shows the response matrix for BMSLSS/SEDS in a particular district.

What is the suggested Tier 2 Triage cut-point?

The CSWI can be part of a comprehensive school mental health monitoring system to identify students needing additional support and services. By looking at students' total CSWI scores, we can prioritize those needing follow-up services. While students with lower CSWI scores are more likely to report experiencing negative emotions, we don't have a specific cut-off score for identifying needy students. Instead, we use different wellness zones to understand the scores. The charts provided show standard scores and boundaries that help differentiate between lower and higher responses, allowing us to target specific zones for follow-up. By considering the strengths and risks associated with the CSWI responses, we aim to help all students achieve better mental health.

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		Social Emotional Distress Scale Total Score																
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Brief Multidimensional Student Life Satisfaction Scale	25	78	24	9	7	7	5	1		1	1						1	134
	24	47	31	26	15	11	1	4	5					1				141
	23	44	47	40	33	25	13	9	3				2	1				217
	22	38	57	55	42	29	11	21	10	3	5	2	1	3				277
	21	34	60	54	59	40	26	16	7	9	2	4	1		2			314
	20	33	57	56	69	64	41	33	26	13	16	6	5	2	3			424
	19	7	21	38	53	39	54	32	26	13	10	7	5	3	2			310
	18	10	22	33	31	41	43	31	31	11	8	11	5	2	1	1		281
	17	4	13	23	30	39	34	30	27	21	14	11	6	3	2		2	259
	16	4	7	11	21	21	27	23	17	15	16	8	7	4	4	1	1	187
	15	4	2	1	15	14	23	18	29	14	7	13	6	4	4	2		156
	14		2	5	7	10	13	17	12	12	8	9	9	1	1	3	1	110
	13		4	2	4	7	7	5	8	6	9	7	7	6	3	1		76
	12	1		4	2	4	6	9	6	7	12	4	4	4	5		4	72
	11	1	1	1	3	4	4	4	4	6	7	9	4	1		1		50
	10	1		1		1	5	6	1	4	4	2	2	6	1	1	1	36
	9				1	1	2	1	3	3	7	6	3	2	1		1	31
	8				4			1	2		1	2	4	1	1	1	2	19
	7				2	1		2	2	5	1	2	2	1				18
	6					1	1		1		3		1			1	1	9
	5						1		2			2			1	1	2	9
	4					1		1	1		1							4
	3								1		1				1			3
	2											1						1
	1	1																0
	0	2			1												2	5
		308	348	359	399	360	317	264	224	143	133	106	74	45	32	13	18	3143

SR6.4 Sample School District CSWI BMSLSS-SEDS Response Pattern Matrix

Explanation Note. The horizontal axis shows total distress values from 0 (no distress) to 15 (high distress). The vertical axis shows the total life satisfaction values from 0 (low satisfaction) to 25 (high satisfaction). The chart shows the number of SCCS students (Grades 6-12) whose response pattern landed in each cell. For example, the cell for a student with a satisfaction score of 18 and a distress score of 6 is shaded green. Response patterns in the upper-left zone represent optimal social-emotional wellness. Response patterns in the lower-right zone represent suboptimal social-emotional wellness. The **bold lines** show the median split for life Satisfaction (0-18 vs. 19-25) and the top 15% (0-8 vs. 9-15) of distress responses. These values are from a sample of 626,940 California students.

How does the CSWI fit with other wellness measures?

The CSWI is a concise and practical index that aids researchers and professionals in applying the dual-factor mental health model. It has the advantage of being co-normed on a large sample for the first time, allowing for the examination of the combined distribution of students' distress experiences and life satisfaction. However, the CSWI is not a direct measure of subjective well-being or a comprehensive measure of quality-of-life indicators. We recommend using the MHC-SF and the Kessler 10 as follow-up assessments for those interested in obtaining more information about students' wellness from a dual-factor model perspective.

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Furthermore, other methods provide researchers and practitioners additional ways to assess students' social and emotional well-being. In a scoping review conducted by Ettinger et al. (2022), 79 measures of child and youth thriving were identified, each assessing one or more elements of well-being.

1. strong minds and bodies (physical and mental health),
2. positive identity and self-worth,
3. caring families and relationships,
4. safety,
5. fun and happiness,
6. racial justice, equity, and inclusion,
7. healthy environments, and
8. vibrant communities (neighborhood and community resources).

The Ettinger review is a valuable resource for selecting measures and constructs related to youth for research, clinical services, or program evaluation. Two commonly used online, open-access measures identified by researchers Ettinger et al. are the Student Subjective Well-Being Questionnaire and the Personal Wellness Index for School Children.

Student Subjective Wellbeing Questionnaire (SSWQ)

The Strengths and Wellbeing Questionnaire (SWQ) by Renshaw et al. (2015) comprises 16 items intended for students aged 11 to 18 in grades 6 through 12. It is used in research to evaluate students' mental health in school settings. The questionnaire assesses the joy of learning, school connectedness, educational purpose, and academic efficacy. These four areas are combined into an overall student well-being score. The SWQ is openly accessible; its documentation, manual (Renshaw, 2022), and forms can be found online.

Personal Wellbeing Index – School Children (PWI–SC)

The PWI-SC (Cummins & Lay, 2023) is a well-being assessment tool developed by Robert Cummins from Deakin University in Australia. It evaluates an individual's quality of life. Cummins emphasizes that quality of life should not be compared across different socio-cultural contexts as the components are interpreted differently. Similar to the MHC-SF, the PWI-SC is a criterion-referenced resource. It asks adolescents to rate their standard of living, personal health, achievement in life, personal relationships, personal safety, feelings of being part of a community, and future security on an 11-point scale (0 = not at all happy, 10 = very, very happy). The average response of the seven items is standardized on a 0 to 100 percentage

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point scale, with scores between 70 and 80 in Western cultural contexts considered normal. The PWI-SC is available in multiple languages. The PWI-SC 4th edition manual is available online.

How does the CSWI contribute to the Dual Factor Model?

The report's main goal was to introduce the CSWI and provide sufficient information for the research and clinical communities to assess its technical adequacy and potential uses in schools and communities. We used the DFM to select constructs and items for a brief wellness screening measure. However, it's important to note that the analyses presented in this report only partially examined the DFM approach. Despite this, we offer two critical observations that have implications for understanding previous DFM research and considerations for future research

Many BMSLSS/SEDS Response Patterns Were Rare

The study found that 40% of the 416 BMSLSS/SEDS response patterns were observed only once or less per 1000 students despite having a sample of over 600,000 adolescents. According to standard DFM nomenclature, **SR6.5** indicates that the percentage of low-occurrence response patterns varied from 9% for the Complete Mental Health group to 80% for the Symptomatic but Content group. The CSWI sample is the first comprehensive dataset to capture the entire spectrum of DFM response patterns. This observation suggests that DFM research should consider establishing the joint distribution of wellness and distress measures, as demonstrated in the current report, rather than relying solely on the study sample distributions and cut scores. Further research is needed to fully enumerate the range of the joint response distribution of wellness and distress.

Response Patterns Adjacent to the BMLSS and SEDS Cut Scores

In previous DFM studies, there has been inconsistency in defining lower and higher wellness and distress. However, some studies have used sample quartiles as cut scores. We followed this approach, as shown by the heavy lines in **SR6.5.** Higher life satisfaction includes values at or above the median, corresponding with “satisfied” or “very satisfied” responses. Higher distress contains values in the top 25%, corresponding with “pretty much like me” responses. The gray cells in **SR6.5** are immediately adjacent to the BMSLSS/SEDS cut score values.

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Neighboring cells make up 24% of the entire sample. Only 18% of CMH and 23% of Troubled responders were next to a cut score. The Languishing (34%) and SBC (41%) responders had the most adjacent values. This observation indicates that changing a single BMSLSS/SEDS or SEDS raw score value would alter the DFM classification of one-quarter of the CSWI sample, suggesting inherent classification instability, given the MDLSS and SEDS distributions. Further research is needed to understand the generalizability of this observation.

			Not Like Me					A Little Like Me					Pretty Much Like Me					Very Much Like Me	
			SEDS	25th			50th				75th							SEDS	
	BMSLSS		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Very Satisfied		25	9% cells ≤ 1@ 1000			5	3	3	1	1	1	1	1		80% cells ≤ 1@ 1000				81
		24				4	2	2	1	1									42
		23	17	10	8	6	4	3	2	1	1	1	1						54
		22	1		10	8	6	5	3	2	2	1	1	1					64
	75th	21	1	CMH	10	9	18% adjacent cells			3	2						SBC		73
Satisfied		20	3		15	14				5	4	41% adjacent cells				1	1	1	129
	50th	19	12	8	10	10	9	8	6	24%		3	3	2	1	1	1	1	85
		18	8	5	7	8	8	8	6			4	3	2	2	1	1	1	74
		17	6	4	5	6	34% adjacent cells			5	5	23% adjacent cells				2	1	2	66
		16	4	2	4	5				5	5					2	1	2	57
Little Satisfied	25th	15	7	2	3	4	4	6	4	4	4	4	4	3	2	2	1	2	59
		14	2	1	2	2	3	4	3	4	4	4	4	2	2	2	1	2	42
		13	2	1	1	2	2	3	3	3	3	3	3	2	2	2	1	2	35
		12	1	1	1	1	2	2	2	2	2	3	3	2	2	2	1	3	30
		11	1		1	1	1	2	1	2	2	2	2	2	2	2	1	2	23
Little Dissatisfied		10	3	1	1	1	1	2	1	2	2	2	2	2	2	1	1	3	25
		9	1				1	1	1	1	1	1	2	1	1	1	1	2	15
		8						1	1	1	1	1	1	1	1	1	1	2	12
		7									1	1	1	1	1	1	1	2	9
		6											1	1	1				7
Dissatisfied		5	Languishing													Troubled			7
		4																	3
		3																1	2
		2																	1
		1	64% cells ≤ 1@ 1000												59% cells ≤ 1@ 1000				1
Very Dissatisfied	BMSLSS	0																	4
			199	86	90	87	76	79	59	53	49	45	45	29	27	23	17	36	1000

SR6.5 Number of Responders in CSWI Cells Adjacent to BMSLSS and SEDS Cut Scores.
Note. Changing one raw score point of the BMSLSS or SEDS gray cells would also change the DFM

The distribution pattern of CSWI, with many students' scores clustering around a BMLSS and SEDS cut score, has at least two implications for how DFM research has been conducted and analyzed.

First, all DFM studies employing the standard or similar four-group (CMS-SBC-Languishing-Troubled) organization with a nonclinical sample consistently report that the CMH group is the largest and report and compare in-study DFM class proportions to those in other DFM studies. Given the proportion of the CSWI sample with scores falling within one raw score

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of a different DFM classification, differences in class proportions across studies could be partially due to measurement imprecision.

Another important implication relates to the long-term patterns of standard DFM classifications, which have been examined in only a few studies and indicate less than optimal stability. For instance, a study by DiLeo et al. (2022) found that 53% of the participants changed DFM groups over 1.5 years from ninth to tenth grade. In a study by Kelly et al. (2012) that looked at DFM stability over five months, the CMH group showed 85% classification consistency. However, more than half of the troubled and SBC groups (53% and 58%, respectively) and 71% of the languishing group experienced a change in classification. In a study of Chinese adolescents, Xiong et al. (2017) reported 64% classification consistency. Similar to the findings of DiLeo and Kelly et al., the CMH group showed the highest stability at 80%, while the other three DFM groups showed less than 50% stability (ranging from 34.5% to 43.6%).

Adolescence is a time of growth, fluctuation, and change, making DFM classifications unstable. The large CSWI sample also suggests that other factors could cause classification instability. When conducting longitudinal DFM stability analyses, it's essential to consider how close a person's classification is to others at Time 1. This consideration helps determine if a change in classification is significant or just due to measurement imprecision.

Dual Factor Model Zonal Interpretation Implications

The traditional method of creating dual-factor mental health groups involves using separate cut points for positive well-being and distress indicators, resulting in four distinct mental health groups. Two of the groups have an intuitive interpretation: *Complete Mental Health* (higher satisfaction and lower distress) and *Troubled* (lower satisfaction and higher distress). Two groups have a counterinitiative interpretation: *Symptomatic but Content* (higher satisfaction and higher distress) and *Languishing* (lower satisfaction and lower distress). However, using this approach, one in four California adolescents had ambiguous DFM classifications.

The development of the CWSI revealed the need for an alternative interpretation strategy when evaluating bidimensional well-being among students (Furlong et al., 2022). This consideration led to the proposal of an alternative zonal approach, which considers the joint distribution of the BMLSS and SEDS when applying the dual-factor model, aiming to provide a more accurate and comprehensive evaluation of students' well-being.

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Under this new zonal approach, students' responses can also be localized into four response zones:

- Zone 1 (high CSWI): students with standard scores of 115 and higher.
- Zone 2 (high average CSWI) includes students with scores between 100 and 114.
- Zone 3 (low average CSWI) includes students with scores between 85 and 99.
- Zone 4 (low CSWI): includes students with standard scores below 85

From a practical applied practice perspective, **Figure SR6.6 illustrates** an alternative approach to creating cut scores that help decide which students to follow up with when using the CSWI within a universal wellness school screening process.

For instance, students whose responses fall within the 3 or 4 zones could be candidates for follow-up attention and care from the dedicated school mental health team.

Similarly, the CSWI can periodically monitor all students' mental wellness over the academic year. More specifically, it can evaluate the effectiveness of delivered school mental health services in supporting a student's movement from Zone 4, for instance, to Zone 3 and higher, thereby indicating positive progress.

CSWI Zone Stability Illustration

In the fall semesters of 2022 and 2023, two middle and three high schools participated in an online screening survey. Parents provided consent, and students had the option to participate or not. The survey included the 10 CSWI items, which provided the opportunity to evaluate CSWI zone stability over one year. Students (N = 1,459; 45.7% female, 48.6% male, 2.7% non-binary, 3.1% different identity; 51.2% White, 28.3% Hispanic, two + ethnicities 12.6%) completed the survey after entering their school ID number. The CSWI total raw scores for 2022 (M = 29.02, SD = 6.75) and 2023 (M = 29.01, SD = 6.25) were similar to the total CSWI norming sample.

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Raw Score

SEDS

Low Distress — **High Distress**

BMSLSS

High Satisfaction

Raw Score

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
25	122	120	119	117	**115**	113	111	109	107	106	104					95
24	120	119	117	**115**	113	111	109	107								
23	119	117	**115**	113	111	109	107	106	104	102	**100**					
22	117	**115**	113	111	109	107	106	104	102	**100**	98	96				
21	**115**	113	111	109	107	106	104	102	**100**	98	96	95	93			
20	113	111	109	107	106	104	102	**100**	98	96	95	93	91	89	87	**85**
19	111	109	107	106	104	102	**100**	98	96	95	93	91	89	87	**85**	84
18	109	107	106	104	102	**100**	98	96	95	93	91	89	87	**85**	84	82
17	107	106	104	102	**100**	98	96	95	93	91	89	87	**85**	84	82	80
16	106	104	102	**100**	98	96	95	93	91	89	87	**85**	84	82	80	78
15	104	102	**100**	98	96	95	93	91	89	87	**85**	84	82	80	78	76
14	102	**100**	98	96	95	93	91	89	87	**85**	84	82	80	78	76	74
13	**100**	98	96	95	93	91	89	87	**85**	84	82	80	78	76	74	73
12	98	96	95	93	91	89	87	**85**	84	82	80	78	76	74	73	71
11	96		93	91	89	87	**85**	84	82	80	78	76	74	73	71	69
10	95	93	91	89	87	**85**	84	82	80	78	76	74	73	71	69	67
9	93					84	82	80	78	76	74	73	71	69	67	65
8									76	74	73	71	69	67	65	63
7											71	69	67	65	63	61
6	87															60
5																58
4																56
3																54
2																
1																
0																48

1 2 3 4

Standard Scores M = 100, SD = 15)

Low Satisfaction

SR6.6 BMSLSS/SEDS/SEDS Response Pattern Zonal Interpretation Areas. Values shown are standards score equivalents (M =100, SD = 15) **Zone 1** (high CSWI) students with standard scores of 100 and higher. **Zone 2** (high average CSWI) includes students with scores between 100 and 114. **Zone 3** (low average CSWI) includes students with scores between 85 and 99. **Zone 4** (low CSWI): includes students with standard scores below 85. Missing cells occurred < 1/1000 students.

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The rows **in Figure SR6.7** depict the district's students' zones in 2022 and their subsequent zone placements in 2023. The values in each row totaled 100%. Red bars represent students whose zone classification remained the same, dark shaded bars show students whose mental wellness decreased, and green shaded bars show students whose mental wellness improved.

In total, 49% of students stayed in the same zone, 22% moved to a lower zone, and 30% moved to a higher zone. It was rare for students with high CSWI values in 2022 to move to the lowest zone in 2023, and the opposite was true for students with lower CSWI values. This overall pattern shows significant stability in CSWI zone classification in this particular district. However, the CSWI measure was sensitive enough to detect changes in student well-being over that time, with sensitivity for students who showed improvement and some who showed declines in overall wellness.

SR6.7. CSWI One-Year (2022-20223) Zone Group Stability

The student responses in this example illustrate CSWI stability over one year in one district. They are from an opportunity sample and do not generalize to all other school settings. Nonetheless, they demonstrate how each school could evaluate changes in their

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students' report wellness. It also illustrates how school-wide universal screening survey information can and should be linked from year to year; that is, comprehensive mental health screening is not a one-time event. An efficient screener, such as the CWSI, provides the school mental health team (school counselors, psychologists, social workers, and others) with an index to assess students' wellness status trajectory across all the middle and high school years.

Access to this information opens up exciting opportunities for schools to further evaluate factors promoting student wellness. For example, a common approach to school-wide mental health screening is to use the screening information, as suggested in this document, for a school mental health team to follow up with students, triage them, and look for those who might most need immediate support services. Caring and efficient follow-up with students with Zone 4 CSWI responses are essential to school-wide screening and provide prevention and early intervention opportunities. However, if this is the only use/purpose of school-wide screening, it limits its potential to positively impact the school climate and the wellness of the school community. For example, as illustrated in this district, some students who had Zone 3 and 4 well-being in 2022 showed improvement in 2023, which provided an opportunity for the school care team to plan follow-up interviews with those students who showed improvement to ascertain and identify factors that may have facilitated that improvement.

Using Wellness Screening to Gauge School Improvement

The following section showcases how a school can utilize school-wide wellness screening information to determine how changes in student-reported wellness were associated with broader strategies and initiatives to promote and support a positive school environment. For instance, in this illustration, a district initiative emphasized improving student wellness by creating a school environment that nurtured students' sense of belonging and connection to the school community. As part of this effort, the district added additional questions to the wellness survey, inquiring about students' attachment and engagement with the school. This strategy provided an opportunity to analyze whether changes in students' wellness from one year to the next were related to their reported level of school engagement. One of the questions added to the survey was, "I do not have anyone to associate with that school." The district schools used this question to gauge social isolation among students. **Figure SR6.8** displays the percentage of students in each stability group responding, "This is not true," in the 2023 CSWI survey (responses indicating that the student did not feel socially isolated). The district examined the responses of students in Zones 2 and 3 in 2022 and found that in 2023, improved wellness was linked to reporting less social isolation and higher engagement. This kind of information can be valuable to schools, along with follow-up interviews with students

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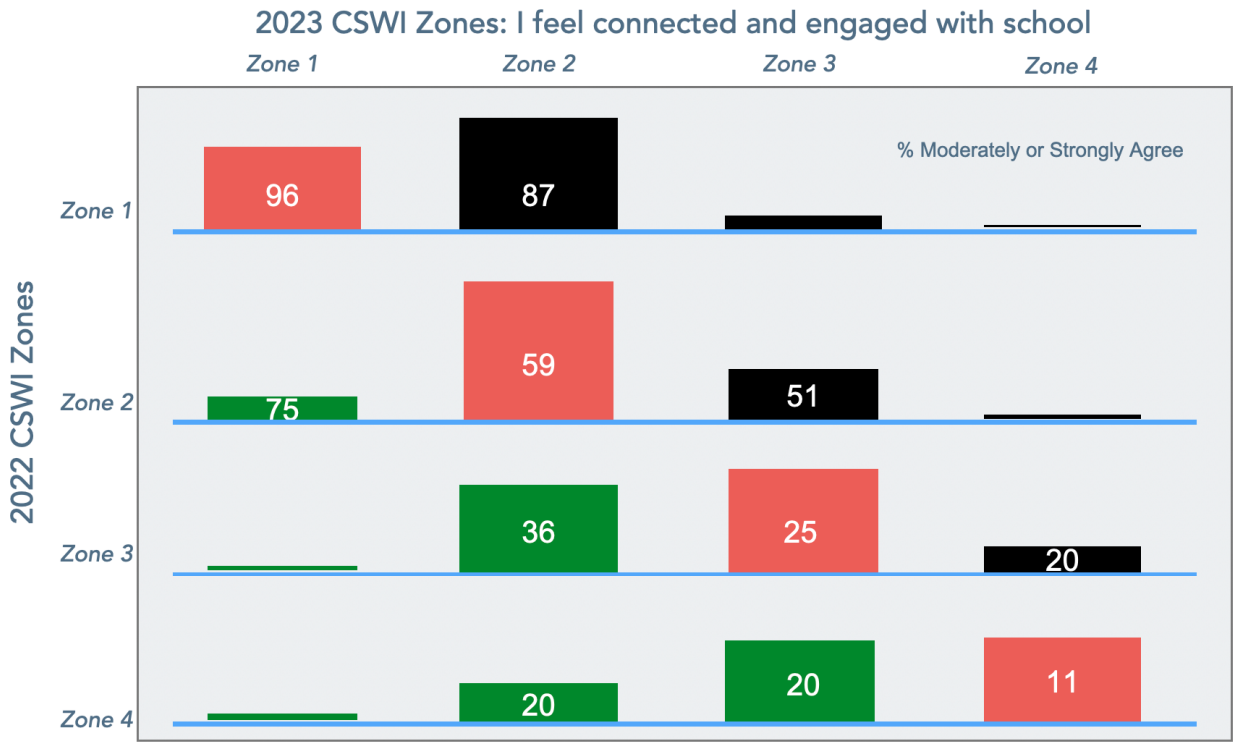
who showed improvement, as it could provide insights into the effectiveness of their strategies, such as promoting greater student belonging and engagement.



SR6.8. Social Isolation for CSWI One-Year (2022-20223) Stability Groups

A final observation is that examining the stability of the year-to-year wellness screening surveys shows how to use screening information for a purpose other than triaging for Zone 4 students. School care teams can also look for **zone improvers** and follow up with them to learn more about factors associated with the student's improvement. This process adds a positive focus on school improvement for screening—It is not just screening for students in need but an essential source of school improvement evaluation information. An added resource benefit is that this focus, including follow-up interviews, could involve non-school mental health staff checking in with improvers to see how they are doing and asking for suggestions about improving the school. This process also conveys a broader message that the school provides a continuum of wellness care, which could help to emphasize screening as a positive, health-promoting school initiative for all students.

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This article and the Online Supplemental Material are original works created jointly. We encourage the use of the CSWI for research, as well as for school and community mental health projects, to assist young individuals to have fulfilling and purposeful lives. When utilizing the CSWI for research purposes, please ensure compliance with appropriate human subject protocols, obtain informed consent from the young individuals and their guardians, and respect their autonomy, dignity, and confidentiality. We are eager to learn about your experiences with the CSWI and any insights you may have gained. Your feedback and recommendations would be highly valued.

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CSWI Resources

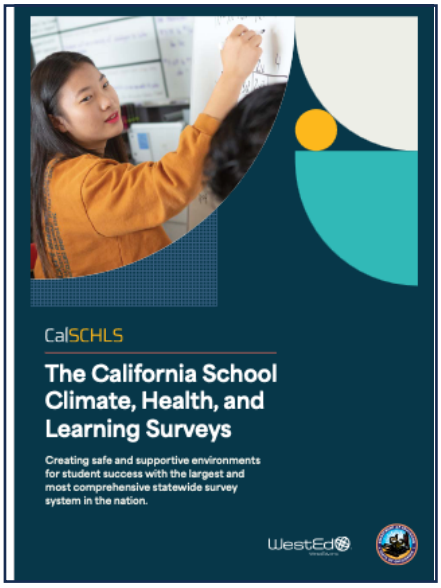
Here are some CSWI MTSS resources

Updated and revised CSWI information, resources, and forms are posted here: (https://linktr.ee/covitalityucsb)

- CSWI Response and Scoring Forms
- CSWI Scoring Practice Worksheet
- CSWI Tier 1 (BMSLSS/SEDS and SEDS) Sample Qualtrics Survey
- CSWI Tier 1 Example Qualtrics Dashboard Report
- CSWI Tier 2 (MHC-SF and Kessler 10) Qualtrics Survey
- CSWI Tier 2 Example Qualtrics Dashboard Report
- CSWI Qualtrics Assessment Resources Links
- Social Emotional Health Survey-Secondary-2020 Forms
- CSWI Infographics

WestEd

California School Climate, Health, and Learning Surveys



Secondary Module

- Survey System
- Student Mental Health & Wellness Project
- CALSCHS Toolbox

Elementary Module

- Social Emotional Health
- Mental Health Supports

Secondary

- Social Emotional Health
- Mental Health Supports

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