RESEARCH ARTICLE

Assessing District Policy Alignment with the Whole School, Whole Community, Whole Child Model in Connecticut, 2019 to 2020*

Sarah L. McKee, MAª [ID] Taylor Thorne, PhD, BCBAᵇ [ID] Jessica B. Koslouski, PhDᶜ Sandra M. Chafouleas, PhDᵈ [ID]
Marlene B. Schwartz, PhDᵉ [ID]

─── ABSTRACT ───

BACKGROUND: The Whole School, Whole Community, Whole Child (WSCC) model offers a comprehensive framework for creating safe, healthy, and supportive school environments. However, few studies to date have examined the degree to which school policies represent a comprehensive and integrated approach to this goal beyond nutrition and physical activity. Therefore, the purpose of this study was to provide a baseline evaluation of the alignment of district-level policies with the WSCC model within one state.

METHODS: Fifty-four Connecticut public school districts' policies were evaluated using the WellSAT WSCC, a new measure of how well district-level policies address topic areas within each domain of the WSCC model. The comprehensiveness and strength of each district's policies were calculated and then averaged across districts to assess areas of strength and need.

RESULTS: Districts' policies were most comprehensive in the domains of Social and Emotional Climate; Behavioral Supports (Counseling, Psychological, and Social Services); and Family Engagement. Policies were strongest for Safe Environment (Physical Environment); Behavioral Supports; and Health Services.

CONCLUSIONS: School district policy coverage of the WSCC model within Connecticut varies by domain and is often fragmented. Comprehensive and coordinated policies modeled from WSCC domains are needed to better support safe, healthy, and supportive school environments.

Keywords: policy evaluation; whole child; school health; school wellness.

Schools are critical for developing students' health through didactic health education and encouraging healthy habits. School health stakeholders recognize the interconnected nature of academic success and school wellness components (ie, physical and mental health, the school environment, families, and community involvement). Driving this integrated perspective is the Whole School, Whole Community, Whole Child (WSCC) model, a comprehensive framework for school wellness created by ASCD (formerly the Association for Supervision and Curriculum Development) and the Centers for Disease Control and Prevention.[1] The foundation of the WSCC model is that students' health, well-being, and academic success are all interrelated and interdependent. The WSCC model organizes health and well-being into 10 domains that

schools are positioned to address. The goal is to meet the whole child's needs and improve students' academic, social, emotional, and health outcomes.

The Role of Policy

Coordinating policy, process, and practice is a key piece of the WSCC model.[2] This coordination ensures that policies and practices addressing one health domain do not contradict those addressing another. Although the literature on state and local school wellness policies (SWPs) on nutrition education, nutrition standards, and physical activity is well developed,[3] few studies have examined the extent to which state or district policies align with the full WSCC model. The most comprehensive study to date is Chriqui and colleagues' report on state policies and regulations.[4] In this report, the researchers found that many states had limited or weak coverage of WSCC domains, and even those with broad or deep coverage lacked coordination across domains.

Policies supporting the WSCC model can also be adopted at the district level. Recently, Chriqui and colleagues examined both state laws and district policies related to the WSCC model.[5] Again, they found uneven coverage of the WSCC model, with district policies addressing 53% of items and state laws addressing 60%. In addition, the authors found that state laws predicted district policies for some but not all domains of the WSCC model. Another research team developed a separate tool to examine WSCC-related policies in the 37 school districts of Los Angeles County.[6] Their analyses found that policies addressed 53% of the WSCC items in their measure, but only 17% were addressed with strong policy language. Together, these studies suggest that district policies may not align well with the full WSCC model.

The Wellness School Assessment Tool (WellSAT) WSCC[7] was developed as a user-friendly quantitative measure to assess how well district policies address best practices for each of the domains of the WSCC model and the implementation, integration, and evaluation of these practices. It can be used by researchers and other stakeholders, such as district administrators and wellness committee members. The WellSAT WSCC expands upon the WellSAT 3.0, a third-generation measure that primarily assesses how well local SWPs address the Nutrition Environment and Services and Physical Education and Physical Activity domains, as well as additional elements of wellness promotion and evaluation.[8,9] The WellSAT WSCC adds 8 subscales that correspond to additional WSCC domains: Health Education, Social and Emotional Climate, Safe Environment, Health Services, Behavioral Supports, Employee Wellness, Community Involvement, and Family Engagement. It also expands the WellSAT 3.0's evaluation subscale to encompass a comprehensive

school health approach.[7] Like WellSAT 3.0, the WellSAT WSCC produces "comprehensiveness" scores that reflect the breadth of topics addressed and "strength" scores that indicate the proportion of policies that are written as specific requirements (ie, with strong language), as opposed to recommendations (ie, with weak language).

Purpose of Current Study

Just as the comprehensiveness and strength of the nutrition policies in local SWPs have improved over the past decade, district policies that address the other aspects of the WSCC model may also improve in the coming years as more schools adopt a coordinated school health approach. Therefore, it is essential to establish the current baseline levels of strength and comprehensiveness of WSCC-aligned policies. The aim of the present study was to use the new WellSAT WSCC measure to evaluate the extent to which school district policies align with the WSCC model in a small New England state. We also aimed to explore the strength of these policies by measuring whether the policy language was strong or weak.

METHODS

Sample

The study took place in Connecticut, which has 201 school districts. The public school districts in the state are grouped into nine District Reference Groups (DRGs) to allow for more meaningful comparisons between socioeconomically similar districts.[10] To ensure a diverse group of districts, we drew from each DRG, using the most recent classification.[10] We randomly selected 30 districts by drawing from each DRG, and then added 24 districts from the list scheduled for their administrative review in the 2019 to 2020 school year. Our final sample (n = 54) had between 22% and 100% of the districts in each DRG, including all 8 districts from the two smallest DRGs.

Measures

The original WellSAT WSCC 1.0,[7] published in 2020, was revised to WellSAT WSCC 2.0 for the current study based on user feedback. WellSAT WSCC 1.0 contained selected items from WellSAT 3.0, but did not contain all items on each subscale. In contrast, WellSAT WSCC 2.0 incorporates all of the WellSAT 3.0 items, totaling 145 items that cover all of the concepts included in the WSCC model. Table 1 shows the source and number of items in each domain of the WellSAT WSCC 2.0. Like the WellSAT 3.0,[11] items are scored on a three-point scale. Policies that do not address an item receive a score of "0." Those that mention a practice but utilize language that weakens the policy (for instance, "the district *recommends* that . . .") receive

a score of "1." The strongest district policies mandate best practices and therefore receive a score of "2.'

Both comprehensiveness and strength scores are presented as percentages between 0 and 100. Comprehensiveness scores are calculated for each section by counting the number of items that received a score of "1" or "2," then dividing by the total number of items. Similarly, strength scores are calculated for each section by counting the number of items that received a score of "2" and dividing by the total number of items.

Demographic data were collected to compare our sample with all Connecticut districts. District enrollment,[12] percent of students eligible for free or reduced-price lunch,[13] and percent of English Language Learners[14] were obtained from the Connecticut Data Collaborative for the 2019 to 2020 school year for each district. Median household income,[15] percent of parents with a bachelor's degree or higher,[16] percent of families with one more parent not in the workforce,[17] and percent of single-parent households with children under 18[18] were obtained from the Connecticut Data Collaborative for 2015 to 2019 by town.

Procedure

Unlike the WellSAT 3.0, which only measures districts' local school wellness policies and the associated regulations and administrative guidelines, the WellSAT WSCC requires users to examine all potentially relevant policies. Therefore, we collected all board of education policies, superintendent regulations, and administrative guidelines via the district's website between spring 2019 and 2020. All policy documents were saved in PDF format and organized by district. Only one district did not have a complete set of policies available online. After several unsuccessful phone and email attempts to reach the superintendent's office, we randomly selected a replacement.

Due to the volume of policies for each district, it was necessary to limit the scope of our search for relevant policy language when scoring certain subscales. For instance, districts may specify responses to sexual risk behaviors or substance use (items on the Health Services subscale) in a wide variety of policies such as health services, student conduct, health curriculum, interactions with law enforcement, and crisis response. This made it difficult to determine the extent to which health services staff were involved in these responses. Therefore, when scoring Health Services items, we limited our search to only health services policies and regulations. Similarly, for the Behavioral Supports and Social and Emotional Climate subscales, we did not score special education policies, as these were often limited to only a small subset of the student population and therefore did not address the wellness of all students. Finally, we limited our search to wellness policies and regulations when scoring

the Integration, Implementation, Communication and Evaluation subscale. The specific board policy topics recommended for each subscale are noted in the WellSAT WSCC scoring guidance.[19]

During the scoring process, we found that districts often cited state and federal laws in their policies. When policies included legal references, we compiled the relevant texts and scored the cited law using the same scoring guidelines used for the rest of the district's policy.

There were several rounds of scoring district policies. Initially, 6 research assistants participated in a 2-hour training before scoring 30 district policies in 2 rounds to pilot the measure. Additional information on this round of scoring and reliability can be found in the WellSAT WSCC development paper.[7] In the third round of scoring, 3 new research assistants were added to the team. They attended a 2-hour training and practiced until each reached at least 80% reliability before scoring the remaining 24 districts.

Data Analysis

Data analyses were performed using IBM SPSS Statistics (Version 27).[20] We computed descriptive statistics for the district demographics of our sample and the state. For each WSCC domain, we calculated the districts' average comprehensiveness and strength scores using the procedure described above. We then calculated the full sample's (a) average comprehensiveness scores to identify how thoroughly each domain was addressed in policy, and (b) average strength scores to identify the degree to which each domain contained strong and specific policy language. For item-level analysis, the frequencies of scores of 0, 1, 2, and N/A were used to calculate the percent of districts addressing each item with strong, weak, or no policy language.

Districts typically create policies in a fragmented process not guided by the WSCC model. Because the WellSAT WSCC superimposes this model onto existing policies rather than measuring expected underlying constructs, we did not perform internal consistency analyses of the WellSAT WSCC domains.

RESULTS

Table 2 presents the average school district demographic characteristics for the districts in our sample and all of the districts in the state. Table 3 presents descriptive statistics for comprehensiveness and strength scores by WellSAT WSCC domain. To facilitate comparison with the WellSAT 3.0 subscales that have been subsumed into WSCC domains, these subscale scores are also presented.

The mean comprehensiveness scores by domain ranged from 37.3 to 79.4 out of a possible 100.

Table 1. Item Sources for WellSAT WSCC 2.0 Domains

WellSAT WSCC 2.0 Domain Name and Number of Items	Source
Physical Education and Physical Activity (15 items)	WellSAT 3.0 Physical Education and Physical Activity Subscale
Nutrition Environment and Services (23 items)	WellSAT 3.0 Standards for USDA School Meals Subscale (10 items) and Nutrition Standards for Competitive Foods and Beverages Subscale (13 items)
Health Education (16 items)	WellSAT 3.0 Nutrition Education Subscale (8 items) and WellSAT WSCC 1.0 Health Education (8 items)
Social and Emotional Climate (10 items)	WellSAT WSCC 1.0 Social and Emotional Climate
Safe Environment (Physical Environment in WSCC model; 13 items)	WellSAT WSCC 1.0 Safe Environment
Health Services (11 items)	WellSAT WSCC 1.0 Health Services
Behavioral Supports (Counseling, Psychological, and Social Services in the WSCC model; 7 items)	WellSAT WSCC 1.0 Behavioral Supports
Employee Wellness (10 items)	WellSAT WSCC 1.0 Employee Wellness
Community Involvement (3 items)	WellSAT WSCC 1.0 Community Involvement
Family Engagement (9 items)	WellSAT WSCC 1.0 Family Engagement
Integration, Implementation, Communication and Evaluation (IEC+; 14 items)	WellSAT 3.0 Implementation, Evaluation, and Communication (IEC) Subscale (8 items) and WellSAT WSCC 1.0 Implementation, Integration, and Evaluation (6 items)
Wellness Promotion and Marketing (12 items)	WellSAT 3.0 Wellness Promotion and Marketing Subscale

Table 2. School District Demographics for Study Sample and State

Demographics	Sample (n = 54)	All Connecticut Districts (n = 201)*
	Mean (SD)	
District enrollment, 2019-2020	5106 (5375)	2626 (3566)
Percent of parents with a bachelor's degree or higher, 2015-2019	36.4% (16.3)*	41.5% (14.6)[†]
Percent of families with one or more parents not in the workforce, 2015-2019	4.7% (4.4)*	3.3% (3.5)[†]
Percent of single-parent families of children under 18, 2015-2019	30.0% (16.2)*	23.4% (12.6)[†]
Percent of students eligible for free or reduced-price lunch, 2019-2020	40.7% (22.6)	37.7% (22.8)
Percent of students who are English language learners, 2019-2020	7.3% (7.8)*	5.0% (5.4)[†]
	Median (Range)	
Median household income, 2015-2019	**$79,730 ($36,278-$193,292)***	**$90,893 ($36,278-$232,523)[†]**

Note. Data obtained from the Connecticut Data Collaborative, Connecticut's census state data center, are based on district and town-level data. Footnotes indicate missing data due to suppressed data reporting at the town and district levels to ensure confidentiality. Where unspecified, all data were available.
*Data were available for at least 90% of districts.
[†] Data were available for between 80% and 90% of districts.

Districts received the highest comprehensiveness scores (which means they had the most items covered in their policies) in Social and Emotional Climate (M = 79.4, SD = 12.3); Behavioral Supports (M = 74.9, SD = 14.9); and Family Engagement (M = 69.8, SD = 15.0). The lowest comprehensiveness scores (ie, the domains with the fewest items covered in policies) were in Wellness Promotion and Marketing (M = 37.3, SD = 23.8); Employee Wellness (M = 39.8, SD = 11.9); and Physical Education and Physical Activity (M = 52.1, SD = 20.5).

The mean strength scores for each domain ranged from 23.4 to 64.9 out of 100. The domains with items most frequently addressed by strong and specific policy language, and thus the highest strength scores, were: Safe Environment (M = 64.9, SD = 20.3); Behavioral Supports (M = 54.0, SD = 16.8); and Health Services (M = 53.7, SD = 16.7). The lowest strength scores (i.e., those with the fewest items addressed by strong policy language) were in Physical Education and Physical Activity (M = 23.4, SD = 15.6); Wellness Promotion

and Marketing (M = 27.8, SD = 22.5); and Employee Wellness (M = 30.3, SD = 12.9).

Item-Level Analysis

Table 4 displays the percent of districts addressing each item with strong, weak, or no policy language. The items are presented in each subscale in descending order by the percent of districts scored as a ''2.'' There were no items with consistently strong policy language across all districts in the sample. However, we found that four items were addressed in policy language by all districts: schoolwide approaches to address harassment and bullying (SEC4); minimizing exclusionary disciplinary practices (SEC8); using positive behavior support practices (SEC7); and goals for nutrition education (NE1). We also found that 5 items were not addressed in any districts' policies: limiting marketing through fundraisers (WPM12); providing space and time for lactation (EW9); forming school-level wellness committees (IEC8); using the CDC's characteristics of an effective health education

Table 3. Mean WellSAT WSCC Scores by Comprehensiveness and Strength

WellSAT WSCC Domain (with subsections)	Comprehensiveness Mean[*],[†] (SD)	Strength Mean[‡] (SD)
Social and emotional climate	79.4 (12.3)	48.7 (9.5)
Behavioral supports	74.9 (14.9)	54.0 (16.8)
Family engagement	69.8 (15.0)	40.1 (18.7)
Community involvement	69.1 (28.9)	44.4 (29.0)
Safe environment	68.4 (20.2)	64.9 (20.3)
Health services	61.1 (18.5)	53.7 (16.7)
Health education	58.2 (15.6)	41.6 (17.9)
Nutrition education[§]	*70.6 (26.5)*	*45.1 (29.6)*
IEC+	53.3 (19.7)	39.4 (20.1)
Implementation, evaluation, communication[§]	*67.8 (24.5)*	*51.2 (26.1)*
Nutrition environment and services	53.2 (18.6)	30.0 (18.6)
Nutrition standards for competitive foods[§]	*52.5 (20.3)*	*34.1 (21.5)*
Standards for USDA school meals[§]	*54.3 (21.0)*	*24.6 (18.4)*
Physical education and physical activity[§]	52.1 (20.5)	23.4 (15.6)
Employee wellness	39.8 (11.9)	29.8 (11.6)
Wellness promotion and marketing[§]	37.3 (23.8)	27.8 (22.5)

[*]Scores are out of a possible 100 points and are averaged across policies, n = 54.

[†]Comprehensiveness scores are calculated by counting the number of items that received a score of "1" or "2" within a section, then dividing by the total number of items in the section.

[‡]Strength scores are calculated by counting the number of items that received a score of "2" within a section, then dividing by the total number of items in that section..

[§]Indicates WellSAT 3.0 sections.

curriculum (HE7); and training in appropriate roles for school resource officers, including positive behavioral approaches, cultural competence and humility, and related topics (SE13).

DISCUSSION

As students return to school following the COVID-19 shutdown, a focus on the WSCC approach to health has never been more important. The United States Department of Education's Roadmap to Reopening highlights the breadth of supports needed to support students reentering schools.[21] While the WSCC model is not explicitly named in the report, several WSCC domains are addressed through guidance on providing nutrition; meeting social, emotional, and mental health needs; providing a safe environment; and supporting employee wellness.

Although there is great potential in using school district policies to promote students' health, prior studies have shown that district board of education policies frequently are not aligned with the WSCC model.[4-6] This study adds to the growing body of research in this area by describing the alignment between district policies and the WSCC model in Connecticut public school districts. It is the first study to examine policies using the WellSAT WSCC tool, providing a baseline for future studies of SWPs. These results also point to important areas for growth.

We found that policy language was present for 40% to 79% of items in each newly added domain. These comprehensiveness scores were roughly similar to those found in the development of the WellSAT 3.0,[9] suggesting that the WellSAT WSCC assessment of the new domains is similar to that of the more established WellSAT 3.0 measure. In addition, we found strong policy language for around 30% to 65% of items in each new domain. These WSCC domain strength scores were slightly higher than those found in the WellSAT 3.0. In the Schwartz et al. study, strong policy language was found for 20% to 55% of items in each section. Although the two tools measure different policies, the similarity in scores suggests that both tools set similarly high bars to which districts can aspire when updating their policies.

Our study's wide variation in scores across WSCC domains reflects that some domains tend to be covered more broadly and with stronger language in district policies (eg, Behavioral Supports), while others are neglected by comparison (eg, Employee Wellness). The following sections explore some areas of strengths and weaknesses in policies. In addition, we consider factors that may help explain these differences.

Evidence of Whole Child Approaches in School District Policies

The domains with the highest mean comprehensiveness scores were Social and Emotional Climate, Behavioral Supports, and Family Engagement. Many districts used similar language for their bullying, school climate, and suicide prevention policies. This language addressed many items in the Social and Emotional Climate and Behavioral Supports subscales. Likewise, many districts appeared to use model policy language regarding parental involvement in schools, which addressed several Family Engagement items.

The domains with the highest mean strength scores were Safe Environment, Behavioral Supports, and Health Services. Even though these domains may not be discussed as frequently in the context of SWPs as the Nutrition and Physical Education domains, many districts in our sample addressed these areas comprehensively in their policies.

Our findings were similar to those of Chriqui and colleagues at the state level.[4] Their 2019 Child Trends report found that Connecticut state policies and regulations had comprehensive coverage of Health Services; Physical Environment; Social and Emotional Climate; and Counseling, Psychological, and Social Services. These domains were among the top scores for comprehensiveness and strength in our study.

Table 4. Percent of Districts Addressing Each WellSAT WSCC Item with Strong, Weak, or No Policy Language

	WellSAT WSCC Item	% 2s*	% 1s†	% 0s‡	% N/A§
Social and emotional climate					
SEC4	Harassment, bullying, and cyberbullying	98.1	1.9	0.0	0.0
SEC8	Exclusionary disciplinary practices	98.1	1.9	0.0	0.0
SEC1	School climate surveys	94.4	0.0	5.6	0.0
SEC6	Responding to climate data	74.1	5.6	20.4	0.0
SEC2	Sharing climate survey results	64.8	0.0	35.2	0.0
SEC3	Positive student-employee relationships	16.7	72.2	11.1	0.0
SEC9	Social emotional learning	16.7	64.8	18.5	0.0
SEC5	Student diversity and inclusion in school activities	16.7	18.5	64.8	0.0
SEC7	Positive behavior support practices	3.7	96.3	0.0	0.0
SEC10	Connecting social emotional learning and academic standards	3.7	46.3	50.0	0.0
Behavioral supports					
BS1	Identifying social, emotional, and behavioral (SEB) needs	85.2	11.1	3.7	0.0
BS6	Community provider coordination	85.2	9.3	5.6	0.0
BS4	Evidence-based prevention and intervention	70.4	27.8	1.9	0.0
BS2	Internal referral system	70.4	24.1	5.6	0.0
BS7	Family engagement for SEB needs	31.5	48.1	20.4	0.0
BS3	Credentials for behavioral health providers	27.8	9.3	63.0	0.0
BS5	Monitoring response to SEB supports	7.4	16.7	75.9	0.0
Family engagement					
FE1	Family representation on wellness committee	68.5	11.1	20.4	0.0
FE2	Family input in wellness policy	55.6	9.3	35.2	0.0
FE3	Family engagement opportunities	50.0	48.1	1.9	0.0
FE8	Wellness information shared with families	50.0	22.2	27.8	0.0
FE7	Culturally-responsive engagement	31.5	25.9	42.6	0.0
FE4	Two-way communication	29.6	53.7	16.7	0.0
FE5	Family engagement aligns with community needs	27.8	7.4	64.8	0.0
FE6	Family engagement aligns with wellness objectives	25.9	16.7	57.4	0.0
FE9	Volunteer opportunities for families	22.2	72.2	5.6	0.0
Community involvement					
CI2	Community input in wellness policy	57.4	7.4	35.2	0.0
CI1	Community representation on wellness committee	53.7	7.4	38.9	0.0
CI3	Service learning	22.2	59.3	18.5	0.0
Safe environment					
SE12	Crisis preparedness and response plan	87.0	1.9	11.1	0.0
SE10	Physical safety measures	83.3	9.3	7.4	0.0
SE9	Facility and equipment safety standards	83.3	1.9	14.8	0.0
SE3	Minimizing exposure to toxins	81.5	3.7	14.8	0.0
SE6	Integrated pest management plan	75.9	3.7	20.4	0.0
SE1	Cleaning	75.9	0.0	24.1	0.0
SE4	Air quality & ventilation	66.7	0.0	33.3	0.0
SE11	School safety team	63.0	5.6	31.5	0.0
SE2	Mold and moisture	61.1	0.0	38.9	0.0
SE5	Water quality	59.3	0.0	40.7	0.0
SE7	Building physical condition	48.1	13.0	38.9	0.0
SE8	Student and employee maintenance	20.4	3.7	75.9	0.0
SE13	School resource officer training	0.0	0.0	38.9	61.1
Health services					
HS1	Qualifications for health providers	94.4	0.0	5.6	0.0
HS6	Student health screenings	92.6	0.0	7.4	0.0
HS8	Allergy management	83.3	5.6	11.1	0.0
HS7	Chronic disease management	72.2	5.6	22.2	0.0
HS4	Family engagement on individual student needs	66.7	1.9	31.5	0.0
HS9	Acute and emergency care	59.3	14.8	25.9	0.0
HS2	Coordination with community health providers	42.6	13.0	44.4	0.0
HS11	Substance use response	40.7	20.4	38.9	0.0
HS5	Disseminating health information	20.4	14.8	64.8	0.0
HS10	Sexual risk behavior response	14.8	0.0	85.2	0.0
HS3	Health services align with community needs	3.7	5.6	90.7	0.0

Table 4. **Continued**

WellSAT WSCC Item		% 2s*	% 1s†	% 0s‡	% N/A§
Health education					
	Nutrition Education¶				
NE1	Goals for nutrition education	88.9	11.1	0.0	0.0
NE7	Links nutrition education with school food environment	48.1	37.0	14.8	0.0
NE3	Elementary school nutrition education	44.4	22.2	33.3	0.0
NE4	Middle school nutrition education	44.4	22.2	33.3	0.0
NE5	High school nutrition education	44.4	22.2	29.6	3.7
NE2	Nutrition education teaches behavior-focused skills	35.2	22.2	42.6	0.0
NE6	Nutrition education integrated into other subjects	33.3	53.7	13.0	0.0
NE8	Nutrition education addresses agriculture and the food system	20.4	13.0	66.7	0.0
	Health Education				
HE1	Health education provided	85.2	11.1	3.7	0.0
HE3	Topics for health education	77.8	5.6	16.7	0.0
HE2	Health educator qualifications	74.1	1.9	24.1	0.0
HE5	Interdisciplinary health education connections	53.7	27.8	18.5	0.0
HE8	Evaluating/revising health curriculum	7.4	3.7	88.9	0.0
HE4	Health curriculum aligns with community needs	5.6	9.3	85.2	0.0
HE6	National Health Education Standards	1.9	1.9	96.3	0.0
HE7	CDC characteristics of effective health curriculum	0.0	0.0	100.0	0.0
Integration, implementation, communication and evaluation (IEC+)					
	Implementation, Evaluation, Communication¶				
IEC3	Identifies person responsible	81.5	7.4	11.1	0.0
IEC1	District committee	72.2	16.7	11.1	0.0
IEC5	Triennial assessment	66.7	20.4	13.0	0.0
IEC4	Wellness policy available	57.4	5.6	37.0	0.0
IEC2	Wellness committee stakeholders	55.6	25.9	18.5	0.0
IEC6	Triennial assessment made available	40.7	24.1	35.2	0.0
IEC7	Wellness policy updates	35.2	33.3	31.5	0.0
IEC8	School committee	0.0	0.0	100.0	0.0
	Implementation, Integration				
II3	Assessing impact and outcomes	46.3	11.1	42.6	0.0
II6	Professional development for wellness implementation	38.9	14.8	46.3	0.0
II4	Culturally inclusive wellness activities	27.8	20.4	51.9	0.0
II2	Other WSCC domains represented on wellness committee	27.8	5.6	66.7	0.0
II1	WSCC or another coordinated model	1.9	5.6	92.6	0.0
II5	Funding wellness activities	0.0	3.7	96.3	0.0
Nutrition environment and services					
	Nutrition Standards for Competitive Foods¶				
NS1	Smart Snacks	85.2	11.1	3.7	0.0
NS6	Fundraisers	68.5	22.2	9.3	0.0
NS3	A la carte sales	48.1	20.4	31.5	0.0
NS5	School store sales	46.3	24.1	29.6	0.0
NS4	Vending machine sales	46.3	22.2	31.5	0.0
NS12	Food as reward	44.4	27.8	27.8	0.0
NS13	Water throughout day	35.2	5.6	59.3	0.0
NS7	Exemptions for infrequent school-sponsored fundraisers	27.8	9.3	63.0	0.0
NS8	Caffeine in high schools	18.5	3.7	74.1	3.7
NS9	Elementary school class parties	7.4	70.4	22.2	0.0
NS10	Food served before/after school day	7.4	7.4	85.2	0.0
NS2	Link to or full text of Smart Snacks	5.6	13.0	81.5	0.0
NS11	Food sold after school day	1.9	0.0	98.1	0.0
	Standards for USDA School Meals¶				
SM6	Strategies to increase participation	55.6	22.2	22.2	0.0
SM8	Water during meals	55.6	9.3	35.2	0.0
SM3	Protects privacy of students	33.3	27.8	38.9	0.0
SM2	USDA School Breakfast Program	31.5	14.8	53.7	0.0
SM1	USDA school meals	27.8	66.7	5.6	0.0
SM7	Seat time for lunch	13.0	74.1	13.0	0.0
SM10	Local food procurement	13.0	24.1	63.0	0.0
SM9	Food service training	7.4	38.9	53.7	0.0
SM4	Unpaid meal charges	5.6	13.0	81.5	0.0
SM5	Eligibility information	3.7	5.6	90.7	0.0

Table 4. **Continued**

	WellSAT WSCC Item	% 2s*	% 1s†	% 0s‡	% N/A§
Physical Education and Physical Activity¶					
PEPA13	Recess	75.9	14.8	9.3	0.0
PEPA7	Qualifications for PE teachers	66.7	9.3	24.1	0.0
PEPA1	PE curriculum	46.3	46.3	7.4	0.0
PEPA15	Joint use	35.2	55.6	9.3	0.0
PEPA3	Physically active lifestyle	35.2	35.2	29.6	0.0
PEPA2	National/state PE standards	33.3	31.5	35.2	0.0
PEPA12	Before/after school PA activities	29.6	44.4	25.9	0.0
PEPA16	Safe Routes to School	13.0	24.1	63.0	0.0
PEPA10	PE substitution	13.0	7.4	79.6	0.0
PEPA14	PA breaks	7.4	51.9	40.7	0.0
PEPA11	Family engagement in PA	7.4	9.3	83.3	0.0
PEPA8	PE teacher training	5.6	14.8	79.6	0.0
PEPA9	PE exemption	3.7	38.9	57.4	0.0
PEPA4	PE time elementary school	1.9	27.8	70.4	0.0
PEPA5	PE time middle school	0.0	25.9	74.1	0.0
PEPA6	PE time high school	0.0	20.4	75.9	3.7
Employee wellness					
EW7	Employee tobacco use	92.6	1.9	5.6	0.0
EW8	Promoting positive workplace	68.5	18.5	13.0	0.0
EW5	Social and emotional supports	46.3	14.8	38.9	0.0
EW1	Employee wellness is district priority	31.5	18.5	50.0	0.0
EW4	Environment supports healthy lifestyles	27.8	24.1	48.1	0.0
EW2	Dissemination of health education for employees	22.2	11.1	66.7	0.0
EW10	Lactation space and breaks	5.6	5.6	88.9	0.0
EW3	Provider health risk screening	1.9	5.6	92.6	0.0
EW6	Employee input in wellness programs	1.9	0.0	98.1	0.0
EW9	Promoting wellness programs	0.0	0.0	100.0	0.0
Wellness promotion and marketing¶					
WPM4	PA as punishment	74.1	1.9	24.1	0.0
WPM5	PA withheld as punishment	59.3	16.7	24.1	0.0
WPM7	Restricted marketing	51.9	11.1	37.0	0.0
WPM1	Staff role model	35.2	18.5	46.3	0.0
WPM6	Healthy marketing	31.5	20.4	48.1	0.0
WPM10	Marketing on vending machines	20.4	5.6	74.1	0.0
WPM2	Employee wellness	16.7	25.9	57.4	0.0
WPM8	Marketing on signs	13.0	1.9	85.2	0.0
WPM9	Marketing in education materials	13.0	0.0	87.0	0.0
WPM11	Marketing in school media	11.1	1.9	87.0	0.0
WPM3	PA as a reward	7.4	11.1	81.5	0.0
WPM12	Marketing through fundraisers	0.0	0.0	100.0	0.0

*Percent of districts addressing item with strong language (score of 2).

†Percent of districts addressing item with weak language (score of 1).

‡Percent of districts not addressing item in policy (score of 0).

§Percent of districts for which item is not applicable (score of N/A).

¶Indicates WellSAT 3.0 sections.

In addition, we found five items addressed by all districts in our sample. One was the policy of having goals for nutrition education that are designed to promote student wellness (NE1). This is not surprising because federal regulations have required that local wellness policies include goals for nutrition education since 2006.[22] The other four items came from the Social and Emotional Climate domain, which echoes our finding that the Social and Emotional Climate domain had the highest mean comprehensiveness score. This finding appears to reflect increased attention to social and emotional learning in schools.[23-25]

For example, Public Act 19-166 was signed into law in 2019 in Connecticut.[26] This act created a collaborative to assess and advise on social and emotional learning and school climate in schools statewide.

Scores for several topics were influenced by the strength of state laws. Items for which a large majority of districts received a score of ''2'' frequently corresponded with state statutes that contain similarly strong and specific language. For instance, 53 of the 54 districts scored received a score of ''2'' for the item addressing harassment, bullying, and cyberbullying (SEC4), and the remaining district received a score

of "1." Connecticut's General Statutes require districts to create safe school climate plans to address bullying and include specific details and guidance for preventing bullying in schools.[27] Many districts cited this statute and thus received a score of "2" based on the strength of the statute. However, some of these districts may have also included language in their policy text that would merit a score of "2" regardless. Furthermore, as discussed below, we found that not all state laws that address WSCC components were cited in district policies.

Additional Work Is Needed to Align School Policies with Whole Child Approaches

We found that Physical Education and Physical Activity, Employee Wellness, and Wellness Promotion and Marketing were neither covered comprehensively nor with strong language. The relatively low scores for the two of these subscales that come from the WellSAT 3.0 (ie, Physical Education and Physical Activity and Wellness Promotion and Marketing) may seem surprising at first because policies that address some of these items have been required since the original SWP requirement in 2006, with updated requirements in 2016.[28] However, as the WellSAT has evolved, the standards have been raised to continue encouraging improvement in district wellness policies. Therefore, the expectations for these policies are higher than in other domains, which may explain the lower scoring.

Employee Wellness was one of the lowest scoring domains for both comprehensiveness and strength in our study. This aligns with Chriqui et al.'s finding that Employee Wellness was not covered in Connecticut's state policies.[4] In contrast, Chriqui and colleagues did find comprehensive coverage of Community Involvement and Health Education in Connecticut; however, we did not find significant attention to these topics in district-level policies.

In addition, we found a notable omission in districts' policies related to a state law regarding employee breastfeeding. Connecticut's statute on lactation in the workplace is strong, requiring that employers provide both time and space other than a restroom stall for lactation needs.[29] Any district policy citing this statute would receive a score of "2" due to the strength and specificity of the law. However, all 54 districts received scores of "0"—not a single district cited this law in their board of education policy. Therefore, while strong state-level policies boost a district's WellSAT WSCC scores when they are reiterated or referenced, not all state laws are reflected in district-level policies.

Finally, although the WSCC model is intended to create a more unified concept of school wellness, we found that policy language for many domains was dispersed across various policies and hundreds of pages of documents instead of presented together in the district wellness policy. This is not entirely surprising, given that federal regulations regarding SWPs center around childhood obesity prevention[22,28] and do not require that other domains of wellness be addressed. However, the fragmentation of wellness-related policies likely hinders the adoption of a comprehensive approach to wellness in schools. Districts seeking to take a more integrated approach to school health may benefit from either citing all policies related to WSCC domains in their SWP or creating an index of their WSCC-related policies. Conceptually grouping these policies would help underscore the interrelated nature of health, well-being, and academic success.

Limitations and Future Directions

The sample in our study was limited to public school districts in a small New England state. As such, our findings regarding WellSAT WSCC scores cannot be generalized to districts in the rest of the United States. However, this first study provides a starting point for future studies that include districts from other states and provide a clearer picture of the state of policies that support the WSCC model across the United States.

We also did not evaluate the implementation of policies in schools. Future research should examine this area to ensure that district policies supporting wellness are being enacted in school-level practices.

Future research might also examine the relationship between state- and district-level policies. We found that many policies cited state-level statutes that addressed WSCC topics, driving up scores in domains such as Social and Emotional Climate. Furthermore, we found some similarities in the strongest and weakest domains in our study of district-level policies and Chriqui and colleagues' study of state-level policies. If the strength of a state's legislation affects the strength of districts' policies, advocates for a WSCC approach to school wellness could focus their efforts on state-level legislation. Therefore, we believe that this area merits further investigation.

Conclusions

Our study expanded upon the existing literature on SWPs by using the WellSAT WSCC to examine policies in all domains of the WSCC, not just nutrition and physical activity. We found that school districts' board of education policies vary in their coverage of WSCC domains. Social and Emotional Climate was widely and strongly addressed in districts' policies, while Employee Wellness, Wellness Promotion and Marketing, and Physical Education and Physical Activity were not covered comprehensively or with strong policy language. We also found that policies relevant to WSCC domains are rarely linked together

in written board of education policies. There is room for district policymakers to improve school districts' approaches to student wellness by using the WSCC model to guide policymaking. The WSCC model provides a comprehensive approach to the many domains of wellness, which could be used to integrate district policies to achieve a ''whole'' focus on providing safe, healthy, and supportive school environments for all students.

IMPLICATIONS FOR SCHOOL HEALTH

This study demonstrates how the WellSAT WSCC can be used to identify areas of strength and limitations in district policies relevant to school health. As a free and publicly available tool, local wellness committees are encouraged to use the WellSAT WSCC to assess the status of their district's WSCC-aligned policies. Practitioners may choose to score only a subset of WSCC domains at one time based on district priorities and introduce the idea of coordinating their efforts across domains. Finally, districts may use the tool across time to action plan, assess, and report progress towards implementing a strong and comprehensive school health approach.

Human Subjects Approval Statement

This study utilized publicly available policy documents and was therefore exempt from human subjects review.

REFERENCES

1. ASCD, Centers for Disease and Control Prevention. *Whole School, Whole Community, Whole Child: A Collaborative Approach to Learning and Health*. ASCD: Alexandria, VA; 2014. Available at: https://www.cdc.gov/healthyschools/wscc/wsccmodel_update_508tagged.pdf.

2. Murray S, Hurley J, Ahmed S. Supporting the whole child through coordinated policies, processes, and practices. *J Sch Health*. 2015;85(11):795-801. https://doi.org/10.1111/josh.12306.

3. Piekarz E, Schermbeck R, Young SK, Leider J, Ziemann M, Chriqui JF. *School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Eight Years after the Federal Mandate. School Years 2006-07 through 2013-14*, Vol. 4. Chicago, IL: Bridging the Gap Program and the National Wellness Policy Study, Institute for Health Research and Policy, University of Illinois at Chicago; 2016 Available at: www.go.uic.edu/NWPSproducts.

4. Chriqui J, Stuart-Cassel V, Piekarz-Porter E, et al. *Using State Policy to Create Healthy Schools: Coverage of the Whole School, Whole Community, Whole Child Framework in State Statutes and Regulations: School Year 2017-2018*. Child Trends: Bethesda, MD; 2019. Available at: https://www.childtrends.org/wp-content/uploads/2019/01/WSCCStatePolicyReportSY2017-18_ChildTrends_January2019.pdf.

5. Chriqui J, Leider J, Temkin D, Piekarz-Porter E, Schermbeck R, Stuart-Cassel V. State laws matter when it comes to district policymaking relative to the whole school, whole community, whole child framework. *J Sch Health*. 2020;90(12):907-917. https://doi.org/10.1111/josh.12959.

6. DeFosset A, Sivashanmugam M, Gase L, Lai E, Tan G, Kuo T. Local school wellness policy as a means to advance whole school, whole community, whole child: assessing alignment in Los Angeles County. *J Sch Health*. 2019;90(2):127-134. https://doi.org/10.1111/josh.12855.

7. Koriakin TA, McKee SL, Schwartz MB, Chafouleas SM. Development of a comprehensive tool for school health policy evaluation: the WellSAT WSCC. *J Sch Health*. 2020;90(12):923-939. https://doi.org/10.1111/josh.12956.

8. Schwartz MB, Lund AE, Grow HM, et al. A comprehensive coding system to measure the quality of school wellness policies. *J Amer Diet Assoc*. 2009;109(7):1256-1262. https://doi.org/10.1016/j.jada.2009.04.008.

9. Schwartz MB, Piekarz-Porter E, Read MA, Chriqui JF. Wellness school assessment tool version 3.0: an updated quantitative measure of written school wellness policies. *Prev Chronic Dis*. 2020;17:1-14. https://doi.org/10.5888/pcd17.190373.

10. Connecticut School Finance Project. *10 Years Later: An Updated Look at CT's District Reference Groups (DRGs)*. 2016. Available at: https://ctschoolfinance.org/resource-assets/DRG-One-Pager-FINAL.pdf

11. UConn Rudd Center for Food Policy & Obesity. WellSAT 3.0. WellSAT.org. Available at: https://www.wellsat.org/upload/docs/WellSAT%20Hardcopy.pdf

12. Connecticut Data Collaborative. Student enrollment by all students. CTData.org. Updated March 26, 2021. Available at: http://data.ctdata.org/dataset/student-enrollment-by-all-students

13. Connecticut Data Collaborative. Student enrollment by meal eligibility. CTData.org. Updated March 26, 2021. Available at: http://data.ctdata.org/dataset/student-enrollment-by-meal-eligibility

14. Connecticut Data Collaborative. Student enrollment by English Language Learner. CTData.org. Updated March 26, 2021. Available at: http://data.ctdata.org/dataset/student-enrollment-by-ell

15. Connecticut Data Collaborative. Median household income by town. CTData.org. Updated March 3, 2021. Available at: http://data.ctdata.org/dataset/median-household-income-by-town

16. Connecticut Data Collaborative. Educational attainment. CTData.org. Updated March 8, 2021. Available at: http://data.ctdata.org/dataset/educational-attainment

17. Connecticut Data Collaborative. Non-working parents. CTData.org. Updated March 2, 2021. Available at: http://data.ctdata.org/dataset/non-working-parents

18. Connecticut Data Collaborative. Children by family type. CTData.org. Updated March 8, 2021. Available at: http://data.ctdata.org/dataset/children-by-family-type

19. Chafouleas SM, Schwartz MB, Koriakin TA, & McKee SL. WellSAT WSCC School Policy Evaluation Tool (Version 2.0). University of Connecticut. 2021. Available at: https://csch.uconn.edu/wellsat-wscc/

20. IBM Corporation. *IBM SPSS statistics for Windows, version 27.0*. Armonk, NY: IBM Corp; 2020.

21. U.S. Department of Education, Office of Planning, Evaluation and Policy Development. *ED COVID-19 Handbook, Volume 2: Roadmap to Reopening Safely and Meeting all Students' Needs*. Washington, DC: U.S. Department of Education; 2021. Available at: https://www2.ed.gov/documents/coronavirus/reopening-2.pdf

22. Child Nutrition and WIC Reauthorization Act of 2004, Pub L No. 108-265, 118 Stat 729. Available at: https://www.congress.gov/108/plaws/publ265/PLAW-108publ265.pdf

23. Collaborative for Academic, Social, and Emotional Learning (CASEL). *Reunite, Renew, and Thrive: Social and Emotional Learning (SEL) Roadmap for Reopening School*. Chicago, IL: CASEL; 2020. Available at: https://casel.org/wp-content/uploads/2020/07/SEL-ROADMAP.pdf

24. DeArmond M, Chu L, Gundapaneni P, Center on Reinventing Public Education (CRPE). *How Are School Districts Addressing Student Social-Emotional Needs during the Pandemic?* Seattle, WA: Center on Reinventing Public Education; 2021. Available at: https://www.crpe.org/publications/how-are-school-districts-addressing-student-social-emotional-needs-during-pandemic.

25. Carr RG. *Accountability in the Classroom: Using Social-Emotional Learning to Guide School Improvement*. Blue Ridge Summit, PA: Rowman & Littlefield Publishers; 2021.

26. An Act Concerning School Climates, PA 19-166 (2019). Available at: https://www.cga.ct.gov/2019/act/pa/pdf/2019PA-00166-R00HB-07215-PA.pdf

27. Conn. Gen. Stat. § 10-222d (2012). Available at: https://www.cga.ct.gov/current/pub/chap_170.htm#sec_10-222d

28. Local school wellness policy implementation under the Healthy, Hunger-Free Kids Act of 2010, final rule. 81 Federal Register §50151 2016.

29. Conn. Gen. Stat. § 31-40w (2012). Available at: https://www.cga.ct.gov/current/pub/chap_557.htm#sec_31-40w