



A Systematic Examination of Texas School District Websites for Suicide Prevention Information

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Abstract

Youth suicide and related behaviors continue to be a significant public health concern in the USA. Multiple approaches across settings, including schools, are required to address this multi-faceted public health concern. The Texas Suicide Safer Schools Report recommended that districts post suicide prevention information on their websites as one piece of more comprehensive suicide prevention initiatives. However, there is no examination in the literature on whether this recommendation has been implemented and what, if any, information is accessible to parents and students about suicide on school district websites. This study quantifies the suicide prevention information available on a random sample of 20% of all Texas school district websites ($N = 242$) and conducts exploratory analyses to examine what district features are associated with an increased likelihood of posting this information. Results indicate that 53% of the sampled websites contained any suicide prevention information. Of the websites containing this information, the most frequent types posted were the numbers of suicide prevention hotlines followed by links to professional organizations. Significant relationships were found between Hispanic/Latino enrollment and information available in Spanish, independent school districts (vs. charters), and posted suicide prevention information, as well as total district enrollment and posted suicide prevention information. Implications and targeted efforts for improvement are discussed.

Keywords Schools · Suicide prevention · Youth suicide

Suicide is the second leading cause of death in the USA for the 10–14-year-old age group and the third leading cause for the 15–19-year-old age group (Centers for Disease Control [CDC], 2023b). Data from the 2021 National Youth Risk Behavior Survey (YRBS), a nationally representative US survey that monitors the risk behaviors of high school students, showed that 22% of high school students reported seriously considering suicide within the last 12 months while 10% reported attempting suicide (CDC, 2023a).

Schools have been identified as important sites for suicide prevention, particularly for youth (Singer et al., 2018). The Texas Suicide Safer Schools Report recommended districts “Provide local, state and national crisis hotline numbers that can be accessed by parents and students on district websites” and that districts “Provide information on the district website about depression and suicide. Include information about who parents should contact in an emergency and for ongoing help at the school if they are concerned about their child” (Poland & Poland, 2015, p. 65). The current study presents the results of a descriptive and exploratory study that systematically reviewed Texas school district websites to determine whether they include suicide prevention content as recommended and what types of information are provided. Exploratory analyses were then conducted to examine whether there were meaningful associations between various district characteristics and their probability of posting suicide prevention information.

Portions of this research were presented as a poster at the 2022 National Association of School Psychologists Annual Conference. Portions of this research were included in the first author’s unpublished master’s thesis.

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Texas Youth Suicide

The youth suicide age-adjusted rate for the 10–19-year-old age group was 7.36 per 100,000 in Texas during 2021, which is above the overall US rate for this group (6.8 per 100,000; CDC, 2023b). YRBS results from 2021 also show that Texas high school students report higher percentages of having made a suicide plan (Texas 19.8%, USA 17.6%), attempting suicide (Texas 12.3%, USA 10.2%), and suicide attempts that required medical attention (Texas 3.5%, USA 2.9%; CDC, 2023b). However, Texas youth reported slightly lower rates of suicidal ideation (Texas 21.7%, USA 22.2%). Firearms are the most common means of suicide in the USA and in Texas, but the same age group has a slightly greater rate of firearm suicide in Texas (3.93 per 100,000) than the US average (3.28 per 100,000). Despite these statistics, fewer youth (ages 3–17) in Texas received mental health care in 2021 compared to the US average (9.3% vs. 11.2% respectively; KFF, 2023). Texas schools have an important role to play in addressing this problem by providing accurate information and facilitating access to care.

Demographic Correlates of Youth Suicide

Discussion of population-level rates of suicide and related behaviors among youth obscures important variability across subpopulations, including racially marginalized youth. For example, Native American youth are consistently found to be at higher risk of suicide than their white peers (Benton, 2022). Although the suicide rate is higher among white youth compared to Black youth, the suicide rate for Black youth is increasing more quickly than for white youth (CDC, 2023b). Lesbian, gay, and bisexual high school students are particularly likely to report a suicide attempt within the past year (Gaylor et al., 2023). Youth suicide rates also tend to be greater in rural areas (Fontanella et al., 2015). We examine several of these demographic correlates in our analyses below.

School-Based Suicide Prevention

Despite nationwide efforts to reduce youth suicide, the age-adjusted suicide rate for the 10–19-year-old age group has increased by 49% between 2001 and 2021 (CDC, 2023b). Current suicide prevention strategies that rely on identifying youth who are presently suicidal or are in high-risk groups and referring them for treatment are unlikely to be sufficient for lowering suicide rates in the population due to the minimal help sought by adolescents and the lack of accessible

mental health services, particularly for marginalized populations (Mental Health America, 2021; Pisani et al., 2012). One potential strategy for addressing this limitation is to focus on preventive interventions at a population level. These strategies might include psychoeducation on depression and suicide, teaching social-emotional learning (SEL), enhancing help-seeking norms and skills, and increasing positive youth-adult connections (Pisani et al., 2012).

The education system has been recognized as an important venue for further suicide prevention efforts (Breux & Boccio, 2019). Schools have taken on the responsibility of identifying, referring, and helping youth with mental health needs (Breux & Boccio, 2019). For example, schools have embedded suicide prevention efforts within the multitiered systems of support (MTSS) frameworks including universal interventions, screenings for youth identified as potentially at risk, and support strategies for students at heightened risk (Singer et al., 2018). Two school suicide prevention programs have evidence from randomized controlled trials that they are effective in reducing suicide attempts: The Signs of Suicide program (SOS; Aseltine & DeMartino, 2004; Aseltine et al., 2007; Schilling et al., 2016) and the Youth Aware Mental Health program (YAM; Trivedi et al., 2022; Wasserman et al., 2015). Although it is uncertain which program components (or their combination) are most responsible for reducing suicidality, the presentation of accurate, non-stigmatizing information about suicide is thought to be an important component of these interventions (Gijzen et al., 2022). A third program, the Good Behavior Game, also has evidence from a longitudinal randomized controlled trial that it reduces youth suicide attempts even though it is not specifically designed as a suicide prevention program (Wilcox et al., 2008).

Schools can reduce youth suicide risk by implementing best practices across prevention, intervention, and postvention efforts (Erbacher et al., 2015; Miller, 2021; Singer et al., 2018). School-based mental health professionals such as school psychologists, school counselors, and school social workers are essential in this work, despite continued staffing shortages (Eklund et al., 2020). Practices across different aspects of the issue have been shown effective: Public health approaches to youth suicide prevention (Horowitz, 2020), clinical treatments for suicidal adolescents (McCauley et al., 2018), and safe-messaging strategies around suicide prevention initiatives (Pirkis et al., 2017; Torok et al., 2017). Many states, including Texas, have issued state-level guidance for their schools to adopt best practices in suicide prevention (Poland & Poland, 2015). National guidance for best practices in suicide prevention for school is also available via district policy guidance (American Foundation for Suicide Prevention, American School Counselor Association, National Association of School Psychologists, & The Trevor Project, 2019), prevention practices guidance (Substance Abuse and

Mental Health Services Administration, 2012), and post-vention best-practices (American Foundation for Suicide Prevention & Suicide Prevention Resource Center, 2018). It is largely unknown, however, to what extent schools have implemented existing guidance.

Help and Information Seeking Behaviors

Although there is an array of evidence-based treatments for youth suffering from mental health disorders (Reynolds et al., 2012), less than two-thirds of these individuals and their families access professional services (Sadler et al., 2018). Acquiring an understanding of why young individuals who suffer from mental health problems do not seek professional help, particularly marginalized populations, is critical in closing the gap between the low utilization of treatment among young people with mental health problems (Radez et al., 2020). Additionally, youth may experience difficulties recognizing that a problem exists and/or lack the desire to tackle those difficulties (Gulliver et al., 2010). Despite these barriers, the demands for specialty mental healthcare services are at an all-time high (Moore & Gammie, 2022). Long waitlists and limited availability of providers are additional barriers to children and adolescents who experience mental health concerns (Radez et al., 2020). Low rates of service utilization are also found specifically for suicidal youth, with only an estimated 28% of this population receiving mental health services (Hom et al., 2015). Adolescents with the highest severity of suicidal ideation are less likely to seek help than those with less severe ideation (Hom et al., 2015). Suicidal youth are less likely to seek help beyond their friends than their non-suicidal peers and are also less likely to recommend friends to seek help from adults or parents (Gould et al., 2004). These findings support the need for reliable sources of information beyond mental health professions and adults. Online information may play an important role in disseminating accurate information to this population.

A systematic review completed by Radez et al. (2020) examined studies about barriers and facilitators that youth face when seeking professional mental health guidance and support to improve treatment access and future intervention designs. Young individuals also noted awareness of where to find help or whom to contact but often believed that the problem was not severe enough (Radez et al., 2020). Further, young people did not seek help or refused help because they preferred to cope with their problems on their own, had the perception that seeking help was seen as a sign of weakness, and were doubtful about the effectiveness of treatment (Radez et al., 2020). Stigma, the views of family and school staff, fears of negative consequences, and feelings of discomfort in sharing sensitive information with unfamiliar individuals were also identified as

barriers to accessing mental health services (Hom et al., 2015; Radez et al., 2020). However, youth-endorsed digital tools as facilitators for communicating their distress and seeking and attending treatment (Radez et al., 2020) and web-based suicide prevention programs have shown some promise (Lai et al., 2014). Racially marginalized suicidal youth are less likely to seek care in the community compared to their white peers; however, rates of utilization of school-based mental health services within these populations are similar (Wu et al., 2010). Given that stigma is a frequently identified barrier, youth may turn to online sources of information instead of first speaking to adults. However, much of the information youth access about suicide on the internet is not scientifically accurate (Szumilas & Kutcher, 2009). Suicide prevention information posted on school district websites may represent an important opportunity to share accurate information and encourage help-seeking in suicidal youth.

Study Aims

The present study aims to (1) quantify whether Texas school district websites have suicide prevention information available to youth, parents, and school personnel, (2) provide a basic description of what categories of information are present on district websites that contain suicide prevention information, (3) examine the extent to which information about suicide prevention was presented in Spanish, and (4) conduct exploratory analyses to examine whether certain district characteristics (e.g., student demographics, enrollment size, number of school psychologists) are associated with a greater likelihood of listing suicide prevention information on their websites. In particular, the study examines whether greater Hispanic/Latino student enrollment is significantly associated with a greater likelihood of having suicide prevention resources posted in Spanish. Given the problem of online health misinformation, including on social media platforms (Luxton et al., 2012), schools may have an important opportunity to curate and share accurate information on suicide and how to obtain help. Furthermore, as many young people who receive mental health services receive them in schools, parents may look to schools as purveyors of mental health guidance (Duchnowski et al., 2013). As a descriptive and exploratory study, no specific hypotheses regarding the four study aims were formed a priori.

Methods

Sample

A list of all Texas school districts was obtained from a publicly available online data source maintained by the Texas Education Agency (TEA) during the fall of 2021. A total of

Table 1 Comparison of district characteristics between the study sample and all Texas schools

District characteristics	Sample districts ($n = 242$)		All Texas districts ($N = 1210$)	
	Mean (SD)	%	Mean (SD)	%
Number of students	4473.1 (10,545.0)	-	4481.96 (12,584.12)	-
Full-time teachers	307.7 (708.3)	-	309.97 (839.31)	-
School psychologists	1.96 (6.33)	-	1.8 (6.02)	-
School counselors	11.82 (29.48)	-	11.45 (31.43)	-
Male students	-	51.0	-	51.2
Female students	-	49.0	-	48.8
American Indian/Alaska Native students	-	0.3	-	0.3
Asian or Asian/Pacific Islander students	-	1.6	-	1.6
Hispanic/Latino students	-	42.3	-	43.0
Black or African-American students	-	8.1	-	8.9
White students	-	44.9	-	43.4
Nat. Hawaiian or Other Pacific Isl. students	-	0.1	-	0.1
Multiracial students	-	2.6	-	2.6
District location: rural	-	54.1	-	53.1
District location: town	-	17.8	-	17.5
District location: suburb	-	11.6	-	11.7
District location: city	-	16.1	-	17.2
District location: missing	-	0.4	-	-
District type: charter	-	12.8	-	15.7
District type: common	-	1.2	-	0.5
District type: independent	-	86.0	-	83.6

Common school districts are those whom the commissioner's court of the county governs the school district, while independent school districts are governed by a locally elected board (TEA, 2020)

1210 school districts were listed, including charter and independent school districts. Twenty percent of the school districts were randomly selected using Excel, creating a study total sample of 242 school districts for further examination. The TEA data was merged with the 2020–2021 Common Core Data (CCD) maintained by the National Center for Education Statistics (NCES) to obtain district-level information on enrollment by race and ethnicity, as well as additional factors such as school locale (i.e., rural, town, suburb, or city) and the number of school counselors and school psychologists within each district. Characteristics of the sample schools, as well as those of all Texas schools, are presented in Table 1.

Data Collection

Categories of information related to suicide that may be present on school websites were created by consensus among the research team (i.e., suicide information, suicide crisis text line, suicide crisis hotline, links to professional organizations, links to informational material, district initiatives/goals, suicide specific programming, school contact instructions, staff training, parent training, district procedures, resources for students, and resources in Spanish). A

codebook was then developed for the review to help ensure common understanding and procedures across coders. The school districts' websites were then each reviewed by one student member of the research team (one undergraduate and seven graduate students) to determine if they had any information relating to suicide prevention according to the coding procedures. Multiple pages within each district website were examined, and the search functions of the websites were used to look for suicide-related content. Each website (and subpages) was examined until all categories of information were found or until 15 min passed. This time limit was chosen both for practicality and because it was judged likely that users would not continue to look for suicide-related information on the district's website if they could not find it within 15 min. To assess interrater reliability, 20% of the 242 school district websites were randomly selected and then coded by another research team member. Percent agreement was calculated for each category of information. Categories that did not reach 80% inter-rater agreement were deemed unreliable and dropped from the analysis (i.e., suicide information, lists of district initiatives/goals, school contact instructions, staff training, and district suicide procedures). For categories that reached 80% inter-rater agreement (i.e., text line, phone hotline, links to professional organizations,

links to informational material, describing suicide-specific programming, parent training, resources overtly targeted at students, Spanish resources), a third rater reviewed the district website and served as a tiebreaker. The overall average interrater agreement for variables included in our sample was 85.75% agreement.

Analysis Plan

We used R (ver. 4.2.2; R Core Team, 2022) and functions from the following packages to conduct all analyses: tidyverse (ver. 2.0.0; Wickham et al., 2019), readxl (ver. 1.4.2; Wickham & Bryan, 2023), apaTables (ver. 2.0.8; Stanley, 2021), psych (ver. 2.2.9; Revelle, 2022), easystats (ver. 0.6.0; Lüdtke et al., 2022), and marginaffects (ver. 0.12.0; Arel-Bundock, 2023). Descriptive statistics were calculated for all categories of website information from most common to least common, along with the percentage of websites that had any suicide prevention information available in Spanish. A series of exploratory comparisons examined whether any district-level features (i.e., locale, district type, student demographics, total district enrollment, ratio of school psychologists, and counselors to students) were associated with a greater or lesser chance of having suicide prevention information on their webpage via logistic regression. The data was also examined to determine if districts with greater Hispanic/Latino student enrollment are more likely to have Spanish resources posted, again using logistic regression. Where the district-level factor might be confounded by district size (i.e., locale and district type), sensitivity analyses with models that controlled for district total enrollment were conducted. Odds ratios and predicted probabilities were calculated for significant predictors. Contrasts were conducted between groups with Holm-Bonferroni corrections to adjust for multiple comparisons given that we had no a priori hypotheses for differences in probability by locale or district type. Further, we computed the differences using heteroskedasticity consistent robust standard errors to account for variation in estimate variance across the different locales and district types.

Results

Descriptive Statistics

District demographics for the study sample and for all Texas districts are compared in Table 1. This comparison strongly suggests that the study sample is representative of the population of all Texas districts. Overall, 53% of sampled district websites contained any suicide prevention information. Of the websites containing suicide prevention information, the most frequent category of information present was hotline

Table 2 Percentage of sample district websites with suicide prevention information

Information category	%
Any information (English)	52.9
Hotline number	40.9
Links to professional organizations	40.5
Resources specifically for students	28.9
Links to informational material	28.5
Crisis text line number	14.0
Any information (Spanish)	11.6
Suicide-specific district programming	7.0
Parent training in suicide prevention	7.0

numbers (40.9%) followed by links to professional organizations (40.5%). A breakdown of the percentage of sample district websites by different types of suicide prevention information is presented in Table 2. Graphs of predicted probabilities from analyses with significant results are presented in Figures 1, 2, 3 and 4.

Logistic Regression Models

Hispanic/Latino Student Enrollment

Approximately 12% of sample districts had suicide prevention information in Spanish on their websites. First, we tested whether the percentage of Hispanic/Latino students in the district was statistically associated with the presence of Spanish language suicide resources on district websites. Overall, Tjur's R^2 (.02) indicated that the model was only able to discriminate between schools that did and did not have resources posted in Spanish very minimally. The relationship was statistically significant and positive (Unstd. beta = 0.02, 95% CI [.001, 0.03], $p = .034$). However, the resultant odds ratio (OR = 1.02, 95% CI [1.00, 1.03]) was small, indicating that every 1% increase in Hispanic/Latino student enrollment is associated with approximately 1.02 times greater odds of having Spanish suicide prevention resources on the district's website.

Further, inspection of the predicted probabilities and their plot for this model suggested that the chance a Texas school district has Spanish-language resources available on their website stays reasonably low across the spectrum of Hispanic/Latino student enrollment increasing only gradually. For instance, the probability of having these resources available only increased roughly 6 percentage points on average between hypothetical districts with 0% Hispanic/Latino enrollment (6% probability, 95% CI [3%, 13%]) to those with 50% enrollment (12% probability, 95% CI [9%, 17%]). This trend was slightly steeper for majority Hispanic/Latino districts where the model predicted an average 11

Fig. 1 Model predicted probability of Spanish language suicide prevention resources being available on district websites by Hispanic/Latino student enrollment. Note: The solid line indicates the point estimates for the predicted probabilities while the grey area reflects the 95% confidence band around these estimates.

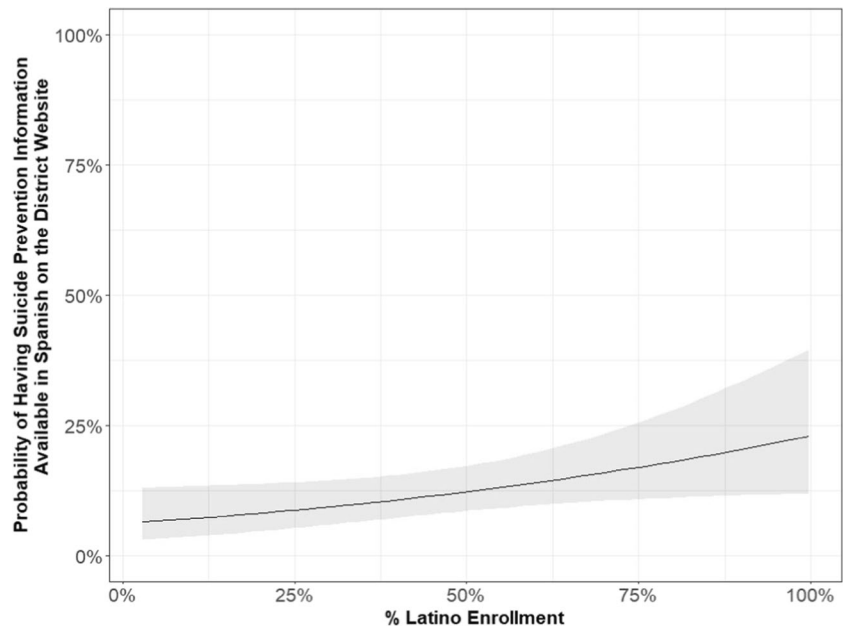
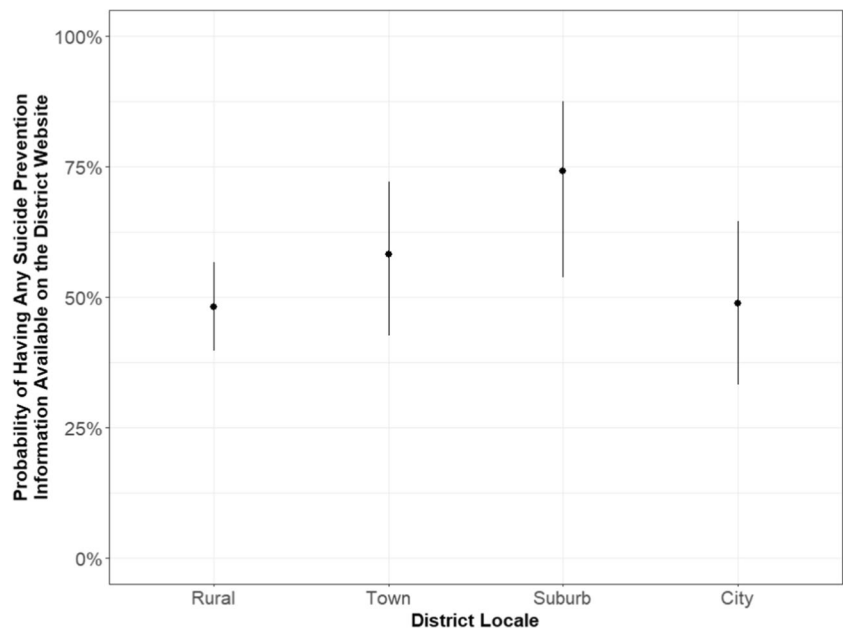


Fig. 2 Model predicted probabilities of any suicide prevention resources being available on district websites by district locale. Note: Probability point estimates are presented with 95% confidence intervals around each.



percentage point increase in probability between districts with 50% Hispanic/Latino enrollment and 100% (23% probability, 95% CI [12%, 40%]).

A model with Hispanic/Latino enrollment as the predictor for any suicide prevention information (i.e., not only Spanish information) available on district websites did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 = .005$; Unstd. beta = $-.005$, 95% CI [$-.004$, $-.001$], $p = .290$; OR = 1.01, 95% CI [1.00, 1.00]). Given that the predicted probabilities were indistinguishable from chance at all levels of enrollment, we conclude that there

was insufficient data that the percentage of Hispanic/Latino students in the district meaningfully predicted the overall availability of online suicide prevention resources.

Native American Student Enrollment

The model with Native American student enrollment as the predictor of any suicide prevention resources available on district websites did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 = .005$; Unstd. beta = -0.44 , 95% CI [-1.26 , 0.34], $p = .274$; OR = 0.64, 95%

Fig. 3 Model predicted probabilities of any suicide prevention resources being available on district websites by district type. Note: Probability point estimates are presented with 95% confidence intervals around each.

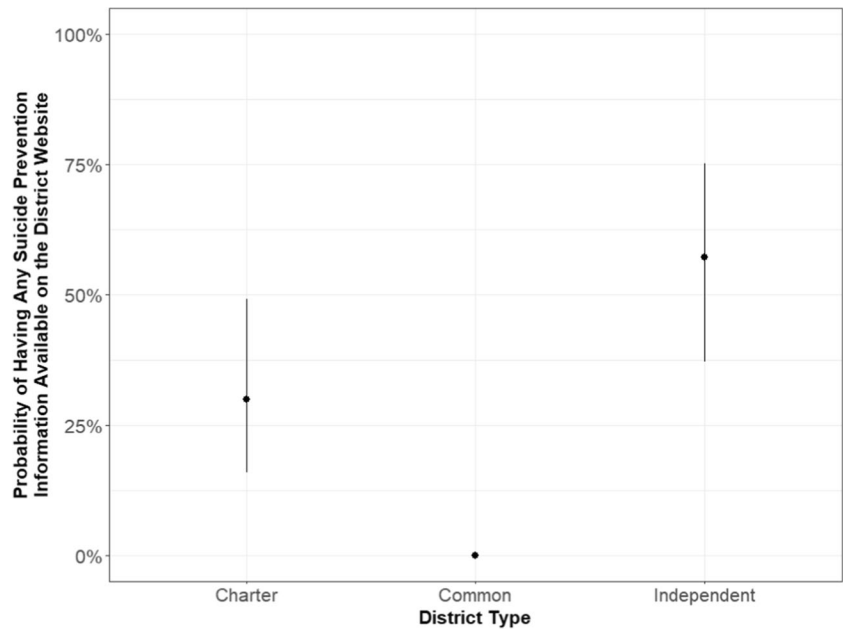
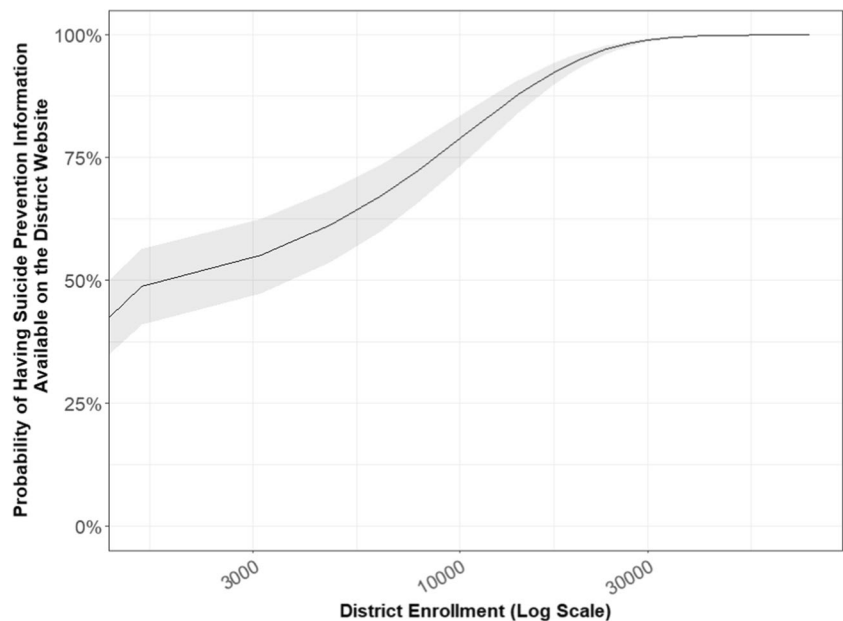


Fig. 4 Model predicted probabilities of any suicide prevention resources being available on district websites by total student enrollment in log scale. Note: The solid line indicates the point estimates for the predicted probabilities while the gray area reflects the 95% confidence band around these estimates.



CI [0.28, 1.41]). Given that the predicted probabilities were indistinguishable from chance at all levels of enrollment, we conclude that there was insufficient data that the percentage of Native students in the district meaningfully predicted the availability of online suicide prevention resources.

Black Student Enrollment

The model with Black student enrollment as the predictor of any suicide prevention resources available on district websites did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 < .001$; Unstd. beta = -0.00 , 95% CI

$[-0.02, 0.02]$, $p = .971$; OR = 1.00, 95% CI [0.98, 1.02]). Given that the predicted probabilities were indistinguishable from chance at all levels of enrollment, we conclude that there was insufficient data that the percentage of Black students in the district meaningfully predicted the availability of online suicide prevention resources.

District Locale

The next model tested if the districts' locale (i.e., rural, town, suburb, city) was associated with the presence of any suicide prevention resources on district websites. Results indicated

that the model overall accounted for a small amount of the variability in the outcome (Tjur's $R^2 = 0.028$), and there were no statistically significant differences between locales at the adjusted $\alpha = .05$ level. Taken individually, while districts in rural (Predicted Probability = .48, $p = 1.000$), town (Predicted Probability = .58, $p = .905$), and city communities (Predicted Probability = .49, $p = 1.000$) had probability estimates indistinguishable from chance, the predicted probability for suburban districts was somewhat greater than chance (Predicted Probability = .74, $p = .090$), though this was not a statistically significant distinction after adjusting for multiple comparisons.

District Type

The next model tested if district types (i.e., charter, common, or independent school district¹) were differentially associated with the presence of suicide resources on district websites. District type accounted for only a small amount of variance in the outcome overall (Tjur's $R^2 = 0.05$), and the probability of common school districts having information posted was the only one distinct from chance levels at 0% predicted probability due to none of the three common school districts sampled having such information available.

There were statistically significant differences in predicted probabilities between all three of the district types at the adjusted $\alpha = .05$ level. Specifically, the model predicted that independent school districts (Predicted Probability = .57, $p = .485$) had 27 percentage points ($SE = .01$, $z = 18.82$, $p < .001$) and 57 percentage points ($SE = .10$, $z = 5.62$, $p < .001$) greater chance on average of having prevention materials posted compared to charter (Predicted Probability = .30, $p = .083$) and common school districts (Predicted Probability = .00, $p < .001$) respectively. Charter school districts showed about 30 percentage points ($SE = .09$, $z = 3.44$, $p < .001$) greater chance on average compared to common school districts. Statistically significant differences remained between independent school districts and charter school districts even after controlling for district size with independent school districts having 3.46 the odds of having suicide prevention information on their websites than charter schools ($p = .009$; contrast = .258, $p < .001$).

District Total Enrollment

We tested whether total district enrollment as the sole predictor was statistically associated with the presence of suicide prevention information on district websites. Overall,

¹ Common school districts are those whom the commissioner's court of the county governs the school district, while independent school districts are governed by a locally elected board (TEA, 2020).

the model's explanatory power was weak (Tjur's $R^2 = .11$). The relationship was statistically significant and positive (Unstd. beta < 0.01, 95% CI [0.00, 0.00], $p < .001$) though very small (OR = 1.00, 95% CI [1.00, 1.00]). Inspection of the plot in Fig. 4 indicates that the predicted probability of a district having suicide prevention information on its website hovers around chance levels for roughly 80% of districts in the sample (i.e., districts with approximately 0–4000 students). These probabilities steeply increase as enrollment increases before flattening out near 100% probability for the largest 5% of districts. Note that including district locale as a covariate in the model largely resulted in the same trend though with a marginally steeper increase in probability as enrollment increases and slightly more uncertainty in the estimates.

Ratio of School Psychologists to Students

The model with a ratio of school psychologists to students enrolled as the predictor of any suicide prevention resources available on district websites did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 = .001$; Unstd. beta = 94.37, 95% CI [-282.78, 510.28], $p = .628$). Given that the predicted probabilities were indistinguishable from chance at all levels of the predictor, we conclude that there was insufficient evidence that the ratio of school psychologists to students enrolled in the district meaningfully predicts the availability of online suicide prevention resources.

Ratio of School Counselors to Students

The model with a ratio of school counselors to students enrolled as the predictor of any suicide prevention resources available on district websites did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 = .007$; Unstd. beta = 105.27, 95% CI [-60.20, 277.04], $p = .218$). Given that the predicted probabilities were indistinguishable from chance at all levels of the predictor, we conclude that there was insufficient evidence that the ratio of school counselors to students enrolled in the district meaningfully predicts the availability of online suicide prevention resources.

Ratio of School Psychologists and Counselors to Students

The final model with the combined ratio of school psychologists and counselors to students enrolled as the predictor of any suicide prevention resources available on district websites also did not show a statistically significant association at the $\alpha = .05$ level (Tjur's $R^2 = .008$; Unstd. beta = 101.83, 95% CI [-48.47, 257.53], $p = .190$). Given that the predicted probabilities were indistinguishable from chance at all levels of the predictor, we conclude that there was insufficient

evidence that the combined ratio of school psychologists and counselors to students meaningfully predicts the availability of online suicide prevention resources.

Discussion

Despite the recommendations contained in the Texas State Suicide Safer Schools Report, the current study found that 53% of school district websites contained suicide prevention information, with the most frequent type of information being suicide hotline numbers. Additionally, results indicated that districts with larger Hispanic/Latino enrollments had significantly greater odds of Spanish language suicide prevention information appearing on the district's website. Similarly, public schools had greater odds of having suicide prevention information when compared to charter schools. Surprisingly, the ratio of students to school mental health professionals was not significantly predictive of online resources.

Given that youth suicide and related behaviors continue to be a significant public health concern, schools remain an important setting for suicide prevention efforts (Erbacher et al., 2015; Miller, 2021; Singer et al., 2018). Although state-wide improvement in posting suicide prevention resources as previously recommended (Poland & Poland, 2015) is a likely next step (as only 53% of sampled district websites had any information), this study suggests targeted next steps as well. Charter school districts were significantly less likely to have suicide prevention information posted and thus might be more specifically targeted for improvement in this area compared to public schools, for example. Districts with smaller enrollments were much less likely to post suicide prevention information than the largest districts sampled. Although there was a significant relationship between Hispanic/Latino student enrollment and the probability of posting suicide prevention information, districts that were majority Hispanic/Latino still only had an average predicted probability of 23% for having information in Spanish posted.

Young people fail to seek professional help mainly due to stigma, embarrassment, difficulty recognizing that a problem exists, and not having the desire to tackle said difficulties (Gulliver, et al., 2010). One of the facilitators endorsed by the youth included using digital tools and informal sources to communicate their distress and for seeking and attending treatment (Lynch et al., 2022; Radez et al., 2020). Given that stigma is a frequently identified barrier, youth may turn to online sources of information instead of first speaking to adults, hence the importance of school districts having suicide information readily available through online tools.

Focusing on the fundamentals, such as posting relevant information on suicide on the school district's website, may be helpful for intervention implementors and school

communities in terms of prevention. It is particularly important for this information to be easily accessible to parents and students. It could be beneficial to include in the beginning of the year packet or email parents and students related to mental health resources available in the school. Successful suicide prevention depends on considering these ecological and logistical factors while implementing, creating, or modifying a specific program, method, or procedure (Breux & Boccio, 2019). Information available to students and families through their schools is an important ecological factor to consider.

Limitations and Future Research

Limitations of this study should be noted. District school websites were coded for readily available suicidal information based on a codebook created by the research team, thus not all possible areas may have been covered. Of the areas covered, several did not reach appropriate interrater agreement and were dropped from the study analyses. Data on textline information is likely an underestimate as most major hotlines also offer textline services, often at the same number—thus, textlines may have been present without the website specifically referring to them as such. Lastly, although study procedures were designed to rigorously capture all suicide-related information on district websites, it is possible that existing information was missed by the raters. However, if this is the case, it seems likely that parents and students would also not be likely to find this information. Future research could establish whether there are differences across states based on state-level youth suicide rates, whether and how students and parents access district websites for suicide prevention information, what stakeholders would like to see posted on district websites, and whether such postings are associated with changes in help-seeking behaviors.

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Declarations

Conflict of interest The authors declare no competing interests.

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