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Social-Emotional Screening to Predict Truancy Severity: Recommendations for Educators

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Abstract

The present study examined whether high school students' (N = 1,658) self-reported social-emotional strengths collected at the beginning of the school year via schoolwide screening could predict student membership in one of three truancy categories (low, moderate, and high to chronic truancy) using discriminant analysis. Results indicated that student self-reported scores for the social-emotional domains *belief-in-self* and *belief-in-others* contributed significantly to the discriminant analysis function for predicting students' truancy severity classification. In addition, multivariate ANOVA was also conducted to identify whether social-emotional strengths differed by gender and ethnicity (Caucasian and Latino/a students) across the three truancy groups. Caucasian students in the low to moderate truancy groups reported higher overall social-emotional strengths than Latino/a students. Gender differences were also found in the low to moderate truancy groups in that females were less likely to report having strengths in the social-emotional domains *belief-in-self* and *engaged living*, while males were less likely to report having a strength in *emotional competence*. Findings demonstrate the utility of schoolwide screening measures to aid in early identification of truancy and an increased need to create truancy prevention and intervention policies that are gender-specific and culturally sensitive.

Keywords

truancy, universal screening, social-emotional measures

Truancy is a serious problem that continues to perplex educators despite combined efforts and millions of dollars spent by local schools, state agencies, and the federal government to increase school attendance and reduce school dropout (National Center for Education Statistics, 2006). Having been identified as one of the top 10 educational problems within the United States, truancy is considered a significant and important predictor of delinquency (Zhang, Katsiyannis, Barrett, & Willson, 2007). Truancy is a legal term and is considered a status offense that is punishable by adjudication or probation depending on the level of severity and state in which the student resides (Puzzanchera, Stahl, Finnegan, Tierney, & Snyder, 2004). Research has shown that schools vary greatly in their attempts to address truancy, though historically many schools have relied on exclusionary discipline practices such as suspensions and expulsions to remediate the behavior (National Center for Mental Health Promotion and Youth Violence Prevention, 2009). Kearney and Graczyk (2014) highlighted the need for more school-based truancy interventions that incorporate early identification, progress monitoring, functional behavioral assessments, and evidenced-based supports. The purpose of this study is to examine if information collected via schoolwide screening on

social-emotional strengths aids in the prediction of truancy severity for Caucasian and Latino/a high school students. More broadly, we sought to examine if schoolwide screening data accurately identify youths at risk for truancy early in the academic year so that preventive measures can be enacted to prevent future engagement in truant behavior.

Truancy Prevalence Rates

Although schools are required to report student attendance rates as a measure of Adequate Yearly Progress (AYP), national prevalence rates for truancy remain unclear largely due to a loose definition of "truancy" that varies between states and school districts (National Center for School

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Engagement [NCSE], 2006). Educators have advocated for a uniform national definition of truancy that would require schools to be more consistent in their policies and approaches to addressing truancy. For the purposes of this article, the term *truancy* is broadly defined as the habitual engagement in unexcused absences from school (Zhang et al., 2007).

Due to inconsistencies between how truancy is defined across school districts, a recent study (Vaughn, Maynard, Salas-Wright, Perron, & Abdon, 2013) relied on self-report data from a sample of 17,482 youths who completed the National Drug Use and Health (NSDUH) survey to circumvent the problem of having to rely on a national definition of truancy. Results showed that 11% of adolescents between the ages of 12 and 17 years reported skipping school in the past 30 days, resulting in an estimated prevalence rate of 2 million students in Grades 9 through 12 who skip school at least once in a given month (U.S. Census Bureau, 2011).

Predictors and Correlates of Truancy

Few studies have focused on the specific predictors of truancy despite substantial evidence that truancy is associated with a range of poor outcomes including school dropout, poor academic performance, drug use, sexual promiscuity, and delinquency (Sheldon, 2007; Sutphen, Ford, & Flaherty, 2010). Henry and Huizinga (2007) examined the predictors of truancy using data from a large probability sample of 1,528 students from high-risk neighborhoods in Denver, Colorado. Multivariate regression analysis revealed that the most robust predictors of truancy included poor school performance, involvement with delinquent peers, school disengagement, drug use, and lack of supervision after school (Henry & Huizinga, 2007). Using school record data and self-report measures, Hunt and Hopko (2009) examined the predictors of truancy among 367 rural high school students from the Appalachian Mountains. Truancy was significantly associated with low parental education, decreased parental supervision, age, and grade level. They also found that depression was significantly linked to truancy; however, Hunt and Hopko (2009) were careful to note that the elevated depression levels may be related to the unique population characteristics of the sample and replication of findings was recommended. These studies were the few available that specifically identified predictors of truancy and provide some information that may be useful for prevention planning. However, there is little information regarding what individual social-emotional strengths (e.g., persistence, optimism) are associated with truancy, which may be particularly useful when working to build strengths-based truancy preventions for youths.

There have also been few studies that have examined whether gender differences exist among the correlates of truancy, and even fewer studies report on ethnic differences associated with these predictors, despite some evidence that these demographic factors may be critically important to understanding truancy. In 2005, the NCSE examined gender differences among truant youths to identify whether gender-specific needs should be considered. The NCSE (2005) partnered with the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Truancy Demonstration Project and found that although boys and girls are equally likely to be truant, 6-month follow-up intervention data revealed that girls had greater numbers of excused absences and significantly more in-school suspensions compared with boys after completing a truancy intervention program. Truancy professionals attributed these findings to gender differences in the reasons why males and females engage in truancy to begin with. According to observations by these professionals during the truancy intervention, males became easily disenfranchised with school when they had few friends or connections at their school, whereas females were more likely to avoid school when they were victims of bullying. Based on these findings, the NCSE (2005) recommended that more research be conducted on the association between problematic relationships and school avoidance for female students in particular.

Past research studies examining ethnic differences among youths who have been truant present conflicting results, which further complicates and hinders school-based efforts to provide culturally responsive truancy interventions. For instance, a study conducted by Harris (2014) indicated that African American elementary students are among the highest subgroup of truant youths when compared with students from other ethnic minority groups and homeless students. However, Vaughn et al. (2013) reported that Hispanic youths are more likely to be truant compared with African American and Caucasian youths, which demonstrates the inconsistencies in truancy prevalence rates for ethnic minority students. Vaughn et al. (2013) hypothesized that one possibility for this inconsistency is that the African American adolescents who were at highest risk for dropping out of school and engaging in truancy may have been absent from school for longer periods of time and therefore absent at the time of data collection. The inconsistency in results from Harris (2014) and Vaughn et al. (2013) highlighted the need for better understanding of the ethnic differences that exist among youths engaging in truancy to aid educators in creating culturally relevant prevention/intervention approaches in their schools. Inconsistencies in the data collection of truancy and attendance data create additional problems in trying to understand disproportionality rates among truant youths. As Harris (2014) pointed out, because some states do not systematically or consistently collect truancy/attendance information, disproportionality in attendance problems continues to be ignored despite

research suggesting heterogeneity differences in demographic variables (e.g., gender, race/ethnicity, free/reduced lunch, Limited English Proficiency, grade, and prior school absences) of students that are truant (Chen, Culhane, Metraux, Park, & Venable, 2016).

Strengths-Based Screening for Truancy

Given the rise in the use of screening techniques as part of multitiered systems of supports in schools (Bruhn, Woods-Groves, & Huddle, 2014), early identification through schoolwide screening efforts for students at risk for engaging in truant behavior may be part of an effective approach to reducing the growing truancy problem that exists in schools across the nation. Traditionally, screening methods have been predominately deficit-based and aimed at identifying students with, or at risk for, problems or disorders. However, concurrent with contemporary expanded definitions that describe mental health as being broader than simply the absence of disease, school-based screening is beginning to take more balanced, strength-based approach to assess mental health (Moore et al., 2015). Within this mental health screening approach, both positive and negative indicators of mental health are assessed, providing a more comprehensive examination of student well-being than a traditional deficit-oriented screening (Kim, Dowdy, Furlong, & Felix, 2014). Screening for social-emotional strengths, along with indicators of distress or risk, in schools allows students to be identified early and receive interventions that may contribute positively to their overall mental health and educational outcomes (Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007).

The link between truancy and social-emotional health, particularly from a strengths-based perspective, remains underrepresented in the truancy literature and is not well understood. Nevertheless, criminal justice research has shown promising findings on the accumulative effect of protective factors in buffering or moderating risk-taking behavior among youths from high-risk environments (Turner, Hartman, Exum, & Cullen, 2007). Similarly, school-based social-emotional health screening research has provided support for the assertion that the accumulation of individual strengths can protect and even counteract risks and negative outcomes for youths (Furlong et al., 2014). Studies have demonstrated that having multiple strengths across multiple domains is associated with favorable developmental and quality-of-life outcomes, including school success (Furlong et al., 2014). For example, in a recent study conducted by You et al. (2014), structural equation modeling (SEM) analyses showed that students with an increased number of core, psychological strengths were significantly more likely to have higher grade point averages (GPAs). To date, however, no studies have examined if data obtained through schoolwide screening are useful in predicting other educational outcomes, including truancy.

Purpose of the Current Study

Given the significant challenges that truancy poses for educators and educational policy makers nationwide, increased attention is needed to understand the social-emotional health of students who engage in truancy. This study contributes to the dearth of literature surrounding the social-emotional correlates of truancy from a strengths-based perspective by identifying the social-emotional factors associated with future truancy behavior for students from Caucasian and Latino/a backgrounds. Past research has shown conflicting findings related to gender and ethnic differences among truant youth highlighting the need for more research in this area. Based on the assumption that protective factors may moderate or buffer against risk-taking behavior, such as engaging in truancy, it was hypothesized that students with higher social-emotional strengths would fall into a lower truancy severity category.

Results aim to provide useful information for schools regarding the social-emotional strengths of high school students engaging in a range of truancy behavior. The following research questions were examined:

> **Research Question 1:** What social-emotional strengths are associated with truancy for Caucasian and Latino/a high school students?
> **Research Question 2:** For students who engage in varying categories of truancy behavior, how do their social-emotional strengths differ according to their gender and ethnicity?

Method

Participants

Students in Grades 9 through 12 attending a central California high school who participated in a schoolwide screening during the 2013–2014 academic year were included in the study. The sample consisted of 814 females (49%) and 846 (51%) males, with 44% of the participants self-reporting as Caucasian ($n = 746$) and 54% self-reporting as Latino/a ($n = 914$). Only 2% of youths reported as "Other" ($n = 40$); however, due to the very small sample size of "Other" reported ethnicities (including American Indian, Chinese, Japanese, Hawaiian, Filipino, and Black or African American), only Caucasian and Latino/a students were included in analyses. Grade levels were equally distributed for participants in ninth (24%), 10th (26%), 11th (25%), and 12th (25%) grades. Students in this sample are representative of the district's high school demographics. Among 1,858 enrolled students during the

2013–2014 academic year, 49% of students were on free and reduced lunch.

Measures

Truancy. Truancy data for the 2013–2014 academic year were obtained from school records at the end of the year and were reported as the total number of unexcused period absences for each student. For this study, students were categorized based on truancy cutoff scores as follows: low (*n* = 1,198, 62.2%), moderate (*n* = 471, 24.4%), and high to chronic truancy (*n* = 257, 13.3%). This categorization was determined using the number of unexcused period absences determined by the local school district and Office of the District Attorney's five-step Community Leadership in Achieving Student Success (CLASS) truancy intervention program. The CLASS program is a graduated intervention system that provides varying levels of response to truancy based on the number of unexcused period absences and was chosen based on the relevancy of classification system for the school district where data were collected. Using the CLASS program as a guideline, students with zero to 12 unexcused period absences were categorized as having "low" levels of truancy. The rationale for defining 0 to 12 unexcused period absences as a "low" level of truancy was that the school only begins to take action with disciplinary procedures (e.g., notification letter, after school meetings, meeting with an administrator and/or truancy mediation team, referral to probation) after 12 unexcused period absences. Students with 13 to 48 unexcused period absences were categorized as having "moderate" levels of truancy. Finally, students with 49 or above unexcused period absences were categorized as having "high to chronic" truancy. The cutoff between "moderate" and "high" levels of truancy was based on the criteria that the School Attendance Review Board (SARB) does not review a truancy case until the number of unexcused period absences reaches 49 or above. For reference, during the 2013–2014 school year, there was a total of 724 school periods; therefore, 49 period absences equate to missing approximately 7% of school periods during the academic year.

Self-reported strengths. Students' self-reported social-emotional strengths were measured using the *Social and Emotional Health Survey–Secondary* (SEHS-S; Furlong et al., 2014). The SEHS-S is a modification and extension of the Resilience Youth Development Module and is associated with the California Healthy Kids Survey, which is an instrument administered within the state of California to measure youths' internal assets and external resources (Furlong, Ritchey, & O'Brennan, 2009). Sample items found on the SEHS-S are included in the appendix. The SEHS-S measures 12 core positive psychological dispositions or assets that are conceptualized as contributors to adolescents' positive mental health (Furlong et al., 2014). The 12 positive psychological dispositions contribute to four first-order, positive mental health domains: *emotional competence* (which consists of emotion regulation, self-control, and empathy), *engaged living* (which consists of optimism, zest, and gratitude), *belief-in-self* (which consists of self-awareness, self-efficacy, and persistence), and *belief-in-others* (which consists of family coherence, peer support, and school support; Furlong et al., 2014). Each of the 12 assets includes three items for a total of 36 items (nine items for each of the four domains) and the total score has been found to have good internal reliability (α = .91; You et al., 2014). The four second-order traits *emotional competence, engaged living, belief-in-self*, and *belief-in-others* load onto a higher order trait called *covitality*, which is conceptualized as the "synergistic effect of positive mental health resulting from the interplay among positive-psychological building blocks" (Furlong et al., 2014, p. 1013). Internal consistency for each of the four second-order traits has been consistent and favorable across several studies (Furlong et al., 2014; Ito, Smith, You, Shimoda, & Furlong, 2015; Lee, You, & Furlong, 2016; You et al., 2014): *emotional competence* (.78-.82), *engaged living* (.87-.88), *belief-in-self* (.75-.84), and *belief-in-others* (.81-.87).

Students respond to each of the 36 items using a 4-point response scale (1 = *not at all true of me*, 2 = *a little true of me*, 3 = *pretty much true of me*, and 4 = *very much true of me*) for all items, except for the six items measuring gratitude and zest, which are measured on a 5-point response scale (1 = *not at all*, 2 = *very little*, 3 = *somewhat*, 4 = *quite a lot*, and 5 = *extremely*). Previous research studies have found evidence for the higher order invariance model across multiple samples (Furlong et al., 2014; You et al., 2014). Confirmatory factor analysis (CFA) conducted during the initial validation of the SEHS-S indicates support for the four second-order traits (i.e., *emotional competence, engaged living, belief-in-self*, and *belief-in-others*) loading onto the single higher order trait *covitality* (Furlong et al., 2014; You et al., 2014). The psychometric properties of the SEHS-S include strong evidence of construct validity and internal consistency; measurement invariance has been established across gender, age groups, and five ethnic groups including Caucasian and Latino students (Furlong et al., 2014; Ito et al., 2015; Lee et al., 2016; You et al., 2014).

Gender and ethnicity. Student demographic information was obtained from school records. Males were coded as "0" and females were coded as "1." Ethnicity data were dummy coded using data from school records with Latino/a students coded as "0" and Caucasian students coded as "1." Previous research on the SEHS-S has supported measurement invariance for both gender (Furlong et al., 2014; Ito et al., 2015; Lee et al., 2016) and ethnicity for five ethnic

groups (Latino, White, Asian, Black, and multiethnic) for California students.

Procedures

At the beginning of the 2013–2014 academic year, all students at the participating high school were asked to participate in a schoolwide screening of social-emotional health using the SEHS-S as part of a partnership between a local university and the school district. All school district and university-approved (i.e., institutional review board) research procedures were followed. Passive consent forms to participate in the SEHS-S were sent home in both English and Spanish as part of students' registration packet at the beginning of the 2013–2014 school year. The letter provided parents with information about the purpose of the screening survey and gave them the option to opt their child(ren) out of participating in the screening, participate in the screening but not in research, participate in the screening but not in any follow-up interventions, or participate in the screening but not in both research or follow-up interventions. Students who did not participate in the screening ($n = 200$, 10.5%) were asked to work on classwork as instructed by their teacher during screening administration.

The SEHS-S was administered online to students over a 2-week period at designated and teacher assigned locations (i.e., classroom with iPads, computer labs, and the library) during second period. Several leadership students assisted in the survey administration and helped teachers administer the survey by putting up survey links on the computer screen and/or providing and collecting iPads. Graduate students and faculty researchers provided teachers with a roster that clearly indicated students whose parents declined consent for screening so that these students would not be able to take the survey. Teachers were also instructed to mark on their rosters students who did not participate in the screening for any reason (e.g., language issues, absence/tardy, or refusal).

Students who were initially absent on the day of screening were provided with three additional opportunities to participate in screening. Ninety additional students completed the survey for a total of 1,658 students out of approximately 1,990 students enrolled, representing 87.3% of the total school's population. At the end of data collection, all survey data were downloaded from Survey Monkey.

Data Analysis Plan

All data analyses were conducted using SPSS version 22.0. To address the first research question, discriminant analysis was used to discriminate, or categorize, truancy groups (low, moderate, and high to chronic truancy) using students' self-report social-emotional strengths. Students who did not engage in any unexcused period absences were excluded from analyses. The four domains of the SEHS-S (*belief-in-self, belief-in-others, engaged living*, and *emotional competence*) were identified as independent variables, while truancy severity served as the outcome variable for the discriminant analysis.

The second research question on gender and ethnic differences for Caucasian and Latino/a students was addressed using MANOVA. The purpose of conducting the MANOVA was to assess for differences in social-emotional strengths, using each of the four SEHS-S domain scores (*belief-in-self, belief-in-others, engaged living*, and *emotional competence*) as the dependent variables and gender, ethnicity, and truancy category as independent variables.

Preliminary analyses assessed whether the assumptions for a discriminant analysis and MANOVA were seriously violated. Examination of the percentage of students for the varying categories of truancy revealed large differences in sample size distributions such that the majority (87%; $n = 1,377$) of students fell into the low and moderate truancy categories, whereas only a small percentage (13%; $n = 223$) of students were included in the high to chronic truancy category. Due to large sample size differences between truancy groups, prior probabilities were assigned when conducting the discriminant analysis to compute classification based on group sample size. However, differences in sample size distributions among truancy groups were noted as a limitation in this study and may have impacted results of the MANOVA. In addition, outliers were detected for the high to chronic truancy category; however, outliers were retained as they were observed to be legitimate observations and accurately reflected the disproportionately high number of unexcused absences for some students in the high to chronic truancy group. Homogeneity of covariance was assessed using Box's M Test of Equality of Covariance Matrices and showed that results were significant, $p < .001$. Given that Box's M Test of Equality is sensitive to normality and sample size distributions (Field, 2013), Levene's Test of Equality of Error Variances was assessed. Results from Levene's Test of Equality of Error Variances found nonsignificant results for all dependent variables with the exception of the SEHS-S domain *emotional competence, $p < .001$.* Thus, the homogeneity of variance assumption was met for conducting the two-way MANOVA. Bonferroni adjustments were applied to results from the two-way MANOVA by dividing the critical p values by three for the total number of comparisons made.

Results

The first research question was to identify the social-emotional strengths that contributed significantly to the variation in levels of truancy for high school students. The discriminant analysis was significant ($p < .001$) between SEHS-S mean scores for each of the domains for the three

Table 1. Classification Coefficients for Discriminant Analysis.

Classification function coefficients	Truancy category		
	0 to 12 (Low)	13 to 48 (Moderate)	49+ (High to chronic)
Belief-in-self	5.161	4.629	4.496
Belief-in-others	3.298	2.976	2.587
Emotional competence	7.135	6.97	6.978
Engaged living	0.547	0.801	0.776
(Constant)	−25.134	−23.858	−22.982

Table 2. SEHS-S Mean Scores for Belief-in-Self, Belief-in-Others, Emotional Competence, and Engaged Living by Truancy Severity.

	Truancy category					
	Low (*n* = 1,035)		Moderate (*n* = 414)		High to chronic (*n* = 209)	
SEHS-S domains	*M*	*SD*	*M*	*SD*	*M*	*SD*
Belief-in-self	2.94	0.50	2.82	0.53	2.61	0.53
Belief-in-others	3.16	0.59	3.04	0.63	2.72	0.65
Emotional competence	3.06	0.51	2.97	0.53	2.96	0.56
Engaged living	3.27	0.72	3.2	0.72	2.86	0.78

Note. SEHS-S = Social-Emotional Health Survey.

truancy categories. Table 1 provides an overview of the classification coefficients and is important for interpreting which variable(s) affect classification into categories. Higher coefficient scores reflect variables that contribute most to the discriminate function. Examination of the *F* ratios is also important for determining the social-emotional domains contributing most significantly to the discriminant function analysis. Results showed that the *F* ratio for *belief-in-self*—$F(2, 1671) = 31.81$, $p < .001$—and *belief-in-others*—$F(2, 1671) = 33.39$, $p < .001$—contributed significantly to the discriminant function.

According to classification results, 62.5% of the truancy categories (low, moderate, and high to chronic) were correctly classified, indicating that the model showed a plausible hit rate (Meyers, Gamst, & Guarino, 2006). The canonical correlation for the analysis was $r = .23$, with an eigenvalue of .05 indicating that the functions (SEHS-S domains) discriminated between groups and was shown to account for 97.3% of the variance by the discriminant analysis model.

MANOVA results showed significant main effects for all three independent variables, including truancy category, $F(10, 3284) = 6.44$, $p < .001$; Wilks's $\Lambda = .993$, $\eta_p^2 = .02$; ethnicity, $F(5, 1642) = 5.74$, $p < .001$; Wilks's $\Lambda = .965$, $\eta_p^2 = .02$; and gender, $F(5, 3284) = 19.72$, $p < .001$; Wilks's Λ, $\eta_p^2 = .06$. Considering Bonferroni adjustments, analyses from the MANOVA did not reveal statistically significant interactions for the dependent variables, $F(10, 3284) = 1.92$, $p = .039$; Wilks's $\Lambda = .993$, $\eta_p^2 = .01$. In other words,

there were no significant interaction effects between gender, ethnicity, and truancy category on any of the four social-emotional health domains (*belief-in-self, belief-in-others, emotional competence*, and *engaged living).*

Post hoc results for the two-way MANOVA were performed to follow up with the main effects previously found for each of the independent variables: gender, ethnicity, and truancy category. For truancy category, significant differences were found for all four of the SEHS-S domains: *belief-in-self,* $F(2, 1646) = 20.79$, $p < .001$; *belief-in-others,* $F(2, 1646) = 22.80$, $p < .001$; *emotional competence,* $F(2, 1646) = 5.02$, $p = .007$; and *engaged living,* $F(2, 1646) = 12.81$, $p < .001$. Table 2 provides mean SEHS-S scores for each of the truancy groups (low, moderate, and high to chronic truancy). In general, students in the low and moderate truancy categories reported higher social-emotional strengths in all four SEHS-S domains compared with students in the chronic to severe truancy category.

Univariate results for ethnicity indicated significant differences for the social-emotional domains of *belief-in-self,* $F(1, 1646) = 6.55$, $p = .011$, and *emotional competence,* $F(1, 1646) = 12.65$, $p < .001$. More specifically, Caucasian students reported higher strengths for *belief-in-self* ($M = 2.85$, $SD = .04$; $M = 2.74$, $SD = .02$) and *emotional competence* ($M = 3.07$, $SD = .04$; $M = 2.92$, $SD = .02$) when compared with Latino/a students, respectively.

For gender, significant differences were found for *belief-in-self,* $F(1, 1646) = 25.85$, $p < .001$; *emotional competence,* $F(1, 1646) = 10.77$, $p = .001$; and *engaged living, F*(1,

1646) = 19.98, *p* < .001. For the social-emotional domain *belief-in-self*, females reported lower strengths (*M* = 2.69, *SD* = .04) compared with males (*M* = 2.90, *SD* = .02). A similar trend was also observed for the domain *engaged living* in which females reported lower strengths (*M* = 2.98, *SD* = .05) compared with males (*M* = 3.25, *SD* = .03). In contrast, females reported higher strengths in the domain of *emotional competence* (*M* = 3.06, *SD* = .04) than males (*M* = 2.92, *SD* = .02).

Discussion

Truancy is a serious problem that continues to challenge parents, educators, and educational policy makers. Numerous studies have documented the long-term consequences of truancy, including school dropout, substance use, and increased involvement with law enforcement (Sheldon, 2007; Sutphen et al., 2010). Surprisingly, the predictors and correlates of truancy according to gender and ethnicity are sparse in the truancy literature and may partially reflect the poor consistency in defining truancy across school districts nationwide. In addition, even fewer studies have focused on the social-emotional strengths of students who engage in truancy creating a significant gap in the literature on strengths-based prevention and interventions strategies for truancy.

Utility of Social-Emotional Health Screening in Predicting Truancy

The current study provides initial support for the use of social-emotional screening, when conducted at the beginning of the academic school year, to significantly predict students' truancy behavior (low, moderate, or high to chronic) over the school year. Results from the discriminant analysis indicated that the SEHS-S domains *belief-in-self* and *belief-in-others* contributed significantly to the discriminant function meaning that these variables predicted truancy classification when conducting schoolwide screening. Classification results showed that students were categorized into truancy categories (low, moderate, and high to chronic) with 62.5% accuracy, which is better compared with chance alone (i.e., 33% likelihood for the three truancy groups). The classification rate (62.5%) failed to identify approximately one third of students in the sample and may reflect the contribution of additional factors, other than social-emotional health, associated with truancy. The classification rate also highlights the utility of schoolwide screening to proactively identify students who are at risk for engaging in truancy when used in conjunction with additional data, such as attendance records and grades, to assess truancy risk. The implications of these results are that the social-emotional domains of *belief-in-self* and *belief-in-others* may be important to target in truancy prevention efforts and should be considered in conjunction with additional school data. Specifically, higher levels of self-awareness, self-efficacy, and persistence (*belief-in-self*), as well as higher levels of family coherence, peer support, and school support (*belief-in-others*) predicted less severe truancy behaviors. Thus, this study suggests that, in addition to the traditional approach of focusing on the level of existing truancy behaviors when deciding appropriate interventions for students, school professionals may also focus on areas of social-emotional health to increase positive prosocial outcomes while simultaneously reducing risks for engaging in truancy. In addition, more research is needed that examines whether the cut score criteria used by school districts to make truancy intervention decisions is empirically based or arbitrarily determined. Information regarding how the school district in the current study selected truancy cut score criteria was not available making it difficult to determine how or if the cut score criteria impacted the identification rate from the discriminant analyses. Thus, it is recommended that the empirical basis for truancy criteria be examined in future studies examining predicted truancy outcomes.

Prior research suggests that truancy risk level can be identified early through screening efforts, such as with the RISK Indicator survey 1 (RISK I) screening tool (Kim & Barthelemy, 2011). However, few truancy studies have examined the utility of using strength-based social-emotional screening scores to identify truancy behavior. As such, these findings should be considered preliminary, as additional research is needed in this area. Following a schoolwide screening procedure, students are generally placed into groups based on predetermined values (e.g., raw scores, standard deviations, *T*-scores). Then students within these groups are triaged, whereby students with more significant symptoms of distress and a lack of self-reported strengths are prioritized for intervention services. To further determine the effectiveness of screening for truancy, conditional probability statistics (i.e., sensitivity, specificity, positive predictive values, and negative predictive values) would need to be evaluated to determine the optimal cut scores for use in classifying students as at risk for truancy using the SEHS-S. Although the current analytic approach using discriminant analyses provides some initial information regarding the utility of social-emotional strengths, much more work is needed prior to engaging in a school-based screening procedure to identify students at risk for truancy. Current results suggest, however, that there may be value in considering social-emotional strengths to identify risk levels of truancy.

Several studies have documented the effectiveness of systematic, schoolwide screening as a proactive approach in a continuum of early identification strategies (Bruhn et al., 2014; Glover & Albers, 2007; Levitt, Saka, Romanelli, & Hoagwood, 2007). However, further work needs to be done

to determine if identifying and intervening with specific strengths is important. Implementing positive interventions at multiple tiers based on results of screening to bolster students' self-efficacy, self-awareness, persistence, and perceptions of school support and peer support might have many benefits, including the reduction of truancy. The Unique Minds School Program is an example of a positive behavioral intervention that promotes self-efficacy and self-advocacy skills using targeted, systematic intervention efforts (Linares et al., 2005) and might be appropriate for targeting low strengths in the *belief-in-self* domain. On the contrary, there is some evidence that providing a combination and variety of strengths, regardless of what they are, can have positive results on students (Lenzi et al., 2015). In their research with 12,040 high school students across 17 high schools in California, Lenzi et al. (2015) found support for a *configuration protective model*, which found that enough strengths in different domains of the SEHS-S was the most protective against negative outcomes. If this is the case, targeting a range of various strengths might be the most efficient way to prevent a variety of negative outcomes, including truancy. We hope that this research serves as a catalyst to further examine social-emotional health within screening contexts to better inform interventions that are known to reduce truancy.

Gender and Cultural Competency for Truancy Prevention

The second research question examined whether differences existed within *belief-in-self, belief-in-others, emotional competence*, and *engaged living* based on truancy category, gender, and ethnicity. MANOVA results showed significant main effects for all three independent variables indicating that SEHS-S scores in each of the four domains significantly differed according to truancy category, gender, and ethnicity. Caucasian students reported higher social-emotional strengths overall on the SEHS-S compared with Latino/a students. Gender differences were also found in that female students were less likely to report having a strong sense of *belief-in-self* and *engaged living* compared with males, while males were less likely to report having a strength in *emotional competence*. No significant interaction effects were found between gender and truancy or truancy and ethnicity. Mean SEHS-S scores between all three truancy groups indicated that students in the low to moderate truancy categories reported higher mean strengths in general compared with students in the high to chronic truancy category.

Information about gender and ethnicity differences for students' social-emotional strengths is provided as a framework for schools and educators to consider when developing culturally responsive and culturally competent truancy interventions. Results from the MANOVA highlight significant gender and ethnicity differences in terms of students' social-emotional strengths and revealed differences in trends that are important for practitioners and school staff to consider. For instance, in both the low and moderate truancy groups, females reported higher strengths in the areas of *belief-in-others* and *emotional competence* compared with males, whereas males reported higher strengths in the areas of *belief-in-self* and *engaged living*. Studies have shown mixed results on gender differences in constructs such as self-esteem and self-concept according to Romer, Ravitch, Tom, and Merrell (2011). The authors report that gender differences across various dimensions of self-concept become more apparent overtime and that there is a decline in the self-esteem and self-confidence of girls as they move from childhood into early adulthood (Romer et al., 2011; Wilgenbusch & Merrell, 1999). Thus, it might be important for schools to develop ways to reinforce the self-esteem and self-confidence of students and particularly girls so they can avoid deleterious outcomes such as truancy.

In terms of ethnicity differences, results from the MANOVA found that Caucasian students had higher self-reported social-emotional strengths across domains for both the low and moderate truancy groups. Latino/a students from the low to moderate truancy categories reported lower social-emotional strengths in general compared with Caucasian students indicating a need for truancy interventions that focus on bolstering self-esteem, promoting healthy and supportive relationships, and encouraging a sense of *engaged living* and *emotional competence* for this population of youths. Additional research is needed to replicate these findings and to understand why Latino/a students are less likely to report strengths in terms of their *belief-in-self, belief-in-others, emotional competence*, and *engaged living* and whether these findings reflect additional stressors in the school environment that Caucasian students do not experience in the same way.

Future research is needed to further explore racial and ethnic differences in social-emotional strengths, including *emotional competence* (i.e., emotion regulation, self-control, and empathy), as reported by chronically truant students to more fully understand the implications of these trends. The nonsignificant results for these trends among the high to chronic truancy group may be due to the small sample size ($n = 209$) of the high to chronic truancy group compared with other truancy groups, thus limiting power to detect significance (i.e., Type II error) for this particular group of students.

Limitations

There were several limitations to this study. First and foremost, the design of the study relied heavily on self-report

data obtained from students using a schoolwide survey. Sole reliance on student self-report data comes with many flaws including mono-method bias. In addition, although the sample was representative of the district's high school demographics, the lack of diversity in the sample limits the generalizability of the findings to the larger student population. Furthermore, the criteria used to define truancy for this study were specific to a central California school district, which may limit the degree to which these findings are generalizable to other students and schools across the country. The issue of truancy has proved challenging for researchers to collect accurate data given the lack of consistency in being able to operationally define when a student is considered truant. We faced similar obstacles in collecting reliable truancy data and categorizing the (truancy) variable according to cutoff scores provided by the local school district. For this reason, findings from this study largely reflect attendance trends from a single high school and do not report on aggregate school data from the district. This study also fails to address whether the presence of a third variable, such as mental health diagnoses, may have accounted for the findings. Future research studies using latent profile analysis or cluster analyses may provide more detailed information on the social-emotional profiles of students who are both truant and not truant. For instance, it would be interesting to examine the social-emotional variability and profiles of youths who are either already moderately/chronically truant or are on the cusp of becoming truant.

Conclusion

Results from this study are considered exploratory and are intended to provide a framework in which to build upon for future research. The current study used a large sample size of students and makes preliminary contributions to the literature on the importance of schoolwide social-emotional screening measures, such as the SEHS-S, as a means to identify students who are at risk for engaging in high levels of truancy. Considering that truancy is associated with a range of deleterious outcomes, efforts to intervene early with students who are truant and identify their social-emotional needs are needed. Replication of the current findings and additional research is needed to identify whether screening for social-emotional strengths can help educators target interventions to effectively prevent truancy. Although the purpose of this article was to explore the utility of social-emotional screening to predict truancy behavior, future research is needed to more thoroughly understand this association. For instance, additional research is needed to examine the long-term effectiveness of screening for truancy using social-emotional measures and implementing tiered social-emotional interventions based on schoolwide screening data.

Appendix

Belief-in-Self

Self-efficacy

I can work out my problems.
I can do most things if I try.
There are many things that I do well.

Self-awareness

There is a purpose to my life.
I understand my moods and feelings.
I understand why I do what I do.

Persistence

When I do not understand something, I ask the teacher again and again until I understand.
I try to answer all the questions asked in class.
When I try to solve a math problem, I will not stop until I find a final solution.

Belief-in-Others

School support

(At my school there is a teacher or some other adult who)
. . .always wants me to do my best.
. . .listens to me when I have something to say.
. . .believes that I will be a success.

Family coherence

My family members really help and support one another.
There is a feeling of togetherness in my family.
My family really gets along well with each other.

Peer support

(I have a friend my age who)
. . .really cares about me.
. . .talks with me about my problems.
. . .helps me when I'm having a hard time.

Emotional Competence

Emotional regulation

I accept responsibility for my actions.
When I make a mistake I admit it.
I can deal with being told no.

Empathy

I feel bad when someone gets their feelings hurt.
I try to understand what other people go through.
I try to understand how other people feel and think.

Behavioral self-control

I can wait for what I want.

I don't bother others when they are busy.
I think before I act.

Engaged Living

Gratitude
Grateful
Thankful
Appreciative

Zest
Energetic
Active
Lively

Optimism
Each day I look forward to having a lot of fun.
I usually expect to have a good day.
Overall, I expect more good things to happen to me than bad things.

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