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The Impact of True Goals as a Classroom Intervention on Middle School Students' Hope and Sense of School Belonging

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Abstract

There is a need for school counselors to use evidence-based practices to provide students with critical protective factors. This study evaluates the impact of the True Goals (TG) School Counseling Curriculum as a classroom intervention for improving hope and sense of school belonging for middle school students. Structural equation modeling was used to evaluate the impact of the intervention on 1,180 students across two diverse, suburban middle schools in the Midwest of the United States. Results of this quasi-experimental study indicated that students who received the TG School Counseling Curriculum had nonsignificant increases in their hope and sense of school belonging. The researchers offer limitations of the study as well as implications for school counseling and future research.

Keywords: school counseling, hope, school belonging, True Goals

Middle school is often considered a challenging time developmentally for many students (Akos, 2002; Jacobson et al., 2011). The transition from elementary to middle school includes navigating larger schools with different rules, multiple teachers, and older students (Akos, 2002). There are also greater demands on executive functioning and changes to social relationships (Jacobson et al., 2011). Furthermore, the recent COVID-19 pandemic contributed to an already complex time by destabilizing the educational system, forcing student isolation, and introducing significant doubts about the future (Office of the Surgeon General, 2021). Post-pandemic, a national mental health crisis worsened, large learning gaps both academically and socially emerged, and evidence of a general lack of school belonging became apparent (Barker et al., 2022). Given these

specific challenges, school personnel, including teachers, school counselors, and administrators, need to adopt a sense of urgency to provide learning environments conducive to student success and well-being that are both psychologically and emotionally responsive (Reinke et al., 2011).

Fortunately, there is evidence that if school professionals understand student needs, they can work to support students by focusing on providing students with protective factors, which work to buffer the impacts of trauma and promote a sense of resiliency (Afifi & MacMillan, 2011). Schools with students who are dealing with a lack of well-being and mental health concerns may choose to focus on interventions that promote a sense of hope and school belonging, which have been shown to protect against these risk factors while increasing overall well-being and student achievement (Sparks et al., 2021).

Schools can focus on building these student assets through a variety of methods; however, schools across the nation have recently emphasized social-emotional learning (SEL) through classroom lessons as a way to build student assets to efficiently impact the greatest number of students (Durlak et al., 2015; Slaten et al., 2024). Schools can choose to deliver these SEL classroom interventions in a variety of modalities, but two common methods include school counselor delivery and classroom teacher delivery (Durlak et al., 2015; Slaten et al., 2024). Recently, scholars within the field of school counseling have questioned whether teachers were the most appropriate delivery modality for SEL classroom interventions (Slaten et al., 2024), yet they are the ones with the most contact with students and can more efficiently reach a greater number of students. Therefore, this study seeks to test the impact of the True Goals (TG; Martin, 2021) School Counseling Curriculum, a goal setting program with burgeoning empirical support for its efficacy in building student assets (Martin, Choi, et al., 2022; Martin, Cunningham, et al., 2022; Zyromski et al., 2019), when it was

delivered as a classroom intervention by teachers to positively impact students' hope and sense of school belonging within two large suburban middle schools.

Literature Review

The TG program is the culmination of several decades of goal setting work with elementary, middle, and high school students (Martin, 2021). The curriculum was developed as a school counseling intervention in alignment with research on the benefits of goals that are self-set, self-monitored, and reinforced. The program aims to guide third- through twelfth-grade students through the goal setting and goal achievement process from start to finish, providing them an opportunity to experience success in a structured and supportive way (Martin, 2021). Overall, the curriculum serves as one aspect of a comprehensive school counseling program, used in conjunction with other programs and interventions to meet the specific needs of students in the building (Martin, 2021).

TG Theoretical Basis

In 1944, Lewin and colleagues began the movement to investigate the nature and influence of goal setting on human behavior (Zimmerman, 2007). Since this early work, other researchers have explored various aspects of goal setting, such as Goal Setting Theory developed by Locke and Latham (1990). Over the past thirty years, Goal Setting Theory has received thousands of citations and generated a comprehensive theory of the goal setting process (Locke & Latham, 2002). Goal Setting Theory assumes that goal setting is a cognitive process that drives behavior. However, there is also an affective component to Goal Setting Theory (Locke & Latham, 2006). Locke and Latham (2006) state that setting a goal is associated with some level of discontent, signaling a discrepancy between a current and desired state. Additionally, an individual's goals set the standard for self-satisfaction or feelings of success regarding their performance (Locke & Latham, 2006).

Research on goal setting within the field of education has also been heavily influenced by the study and application of Bandura's (2001) social cognitive theory, particularly through the lens of student self-regulation and motivation (Schunk & DiBenedetto, 2020). According to social cognitive theory, goal setting brings energy and direction toward motivational outcomes (Bandura, 2001; Schunk & DiBenedetto, 2020). Setting goals and reflecting on progress generates effort and persistence within individuals (Schunk & DiBenedetto, 2020). Additionally, goal setting, goal pursuit, and self-reflection are the mechanisms through which individuals exercise their sense of agency (Schunk & DiBenedetto, 2020) and build self-efficacy (Locke, 2001). A manualized program founded upon these robust theoretical foundations, the TG curriculum emphasizes ten core principles: setting personal goals, writing down goals, rating progress, re-evaluating goals, tracking goal attainment strategies, considering potential barriers to achievement, identifying influences, naming supportive individuals, identifying patterns, and celebrating learning (Martin, 2021).

TG Program Structure

In conjunction with the program's facilitator guide, the ten principles were designed to be delivered as a function of the school counseling program, whether directly from the school counselors or through a proxy of the classroom teachers over eight to twelve weeks (Martin, 2021). Although the curriculum calls for instruction on the ten core principles, TG is more process-focused than content-focused. The content of the lessons can be adapted to fit the specific needs of the students according to their location and setting while allowing the students to have the experience of successfully setting and achieving goals rather than focusing on understanding concepts related to goal development. Typically, an instructor delivers the principles through weekly meetings in small groups or classrooms, and school counselors, teachers, and students are encouraged to share their

goals, perceived barriers to goal achievement, self-ratings for goal monitoring, and progress toward goal achievement. Students' self-set goals can cover a variety of domains, including academics, college and career, social/emotional, or relational. Additionally, with the support of the facilitator, students have the opportunity to refine their goals throughout the program.

Previous TG Research

Although the empirical support for TG is in the early stages, the evidence has been encouraging. To date, evaluations of the program have included three studies examining small-group counseling interventions that impacted over 150 upper elementary, middle, and high school students across two states. The pilot study, conducted by Zyromski et al. (2019), explored the efficacy of small-group TG intervention in an after-school setting for fourth- and fifth-grade students in a Midwestern school district. Specifically, the study sought to assess the impact of TG on students' self-knowledge, self-direction, motivation, and positive relationships with others. The study was conducted across two elementary schools in a suburban school district and used a single-group pretest-posttest design. In total, 59 students participated in the intervention, but only 25 participants completed all lessons and the pretest and posttest. Classroom teachers completed the Protective Factors Index (PFI; Bass et al., 2015) to assess students' motivation, self-knowledge, self-direction, and relationships before the start of the intervention and upon intervention completion (Zyromski et al., 2019). The researchers utilized a paired-samples t-test to evaluate the difference between the mean scores on the pretest and posttest, resulting in a significant increase in the total PFI score ($p = .01$) with a large effect size ($d = .83$).

Since the publication of the pilot study, there have been two additional attempts to evaluate the effectiveness of the TG curriculum (Martin, Choi, et al., 2022; Martin, Cunningham, et al., 2022).

The first study sought to explore the impact of the TG curriculum on fourth through seventh-grade students' goal setting skills, academic self-regulation, motivation, self-knowledge, self-direction, and relationships (Martin, Choi, et al., 2022). The second study explored the impact of the curriculum on high school students' academic and social self-efficacy (Martin, Cunningham, et al., 2022). Both studies utilized a waitlist control design with random assignment to assess the impacts of the intervention (Martin, Choi, et al., 2022; Martin, Cunningham, et al., 2022). The samples of the two studies were also similar, including a relatively large percentage of Hispanic/Latino students, and they were both conducted in the Southwest region of the United States. The first sample included 46 students across two schools, from fourth to seventh grade (Martin, Choi, et al., 2022). The second study included 47 students across two high schools, ranging from ninth to twelfth grade (Martin, Cunningham, et al., 2022). The first study used a split-plot ANOVA to analyze the mean differences between the intervention and control groups' pretest and posttest scores on each measure (Martin, Choi, et al., 2022). Results from the analyses indicated that students in the intervention group had significantly greater increases in scores between the pretest and posttest on the PFI, but no significant differences between the intervention and control group on students' perceptions of goal setting skills or academic self-efficacy. Researchers in the second study utilized two one-way analyses of covariance to compare performance trends between the treatment and control groups in academic and social self-efficacy (Martin, Cunningham, et al., 2022). The analyses showed significantly greater increases in social self-efficacy for the group who completed the TG intervention but no significant differences in academic self-efficacy.

However, it is also important to note the limitations of the three studies. Most notably, there are concerns with the sample in each study. First, all three studies lacked a priori power analyses and had very small samples, limiting the generalizability of the results. Second, none of the studies considered the nested nature of school-based intervention research nor the latent nature of the

variables of interest. Additionally, the latent nature of the outcome variables selected for these studies necessitates analyses that are sensitive to measurement errors found in latent constructs (Hox, 2013; Kline, 2023). Alternative analysis methods, such as Structural Equation Modeling (SEM), are better suited to address the delicate factor structures of these constructs, particularly when analyzing their relationship between latent constructs.

Hope, School Belonging, and Goal Setting

School-based goal setting interventions may provide students with critical assets that support school success (Morisano & Shore, 2010; Zimmerman, 2007). Goal setting is also a critical component of hope (Snyder, 2002), a process through which individuals work toward achieving their goals using pathways thinking and agency thinking. Relatedly, prior research has demonstrated a strong positive association between hope and students' sense of school belonging (Van Ryzin et al., 2009). School belonging impacts student success through positive outcomes related to improving mental health, decreasing maladaptive behaviors, and improving academic success (Allen et al., 2018; Allen & Bowles, 2012; Slaten et al., 2016). As a result of these benefits, it seems likely that students would benefit from school counseling interventions that positively increase hope and belonging.

Hope

Hope is a factor that has received considerable attention over the past 30 years (Marques et al., 2017). During this time, the most cited definition of hope (Marques et al., 2017) has been Snyder et al.'s (1991) Hope Theory. Individuals are hopeful when they feel they have goals they can successfully meet with strategies for meeting them (Marques et al., 2017; Snyder et al., 1991). Pathways thinking relates to an individual's perceptions of how they can move from their current reality to their desired future (Snyder, 2002). In many cases, generating several pathways to the desired goal is useful when an individual encounters a barrier or impediment (Marques et al., 2017).

Agency thinking is associated with motivation and refers to an individual's "perceived capacity to use one's pathways to reach desired goals" (Snyder, 2002, p. 251). This is the motivational component of hope, as it reflects the degree to which an individual believes they can progress toward their goal (Marques et al., 2017; Snyder, 2002).

In education, research has shown that hope positively impacts grades in secondary school (Kam & Merolla, 2018; Snyder et al., 1991). Further, researchers found that academic hope significantly predicts academic success better than two other variables that receive considerable attention: self-efficacy and optimism (Dixson et al., 2017; Feldman & Kubota, 2015). Research also demonstrated that hope is malleable and responsive to short-term interventions (Carney et al., 2019). These interventions and practices can occur at the individual, small group, or large group levels (Pedrotti et al., 2008). Typically, the interventions focus on developing goal, agency, and pathways techniques (Snyder et al., 2002). Attempts to foster hope among children and adolescents have led to positive impacts on academic achievement (Kam & Merolla, 2018), peer relations (Steen et al., 2017), and general well-being (Bryce et al., 2020). Additionally, approaches to goal setting, goal sequencing, and pathway creation have cultivated hope (Akos & Kurz, 2016).

Goals are embedded within the concept of hope. As envisioned in Hope Theory (Snyder, 2002), hope consists of an individual's ability to forecast pathways toward future goals and the agency to achieve those goals. According to this definition, hope is about more than simply setting goals because it involves individuals' beliefs about their ability to successfully engage in a goal-directed thought process. Setting and working toward goals in a structured and supportive way should build hope in children and adolescents (Snyder et al., 2002).

School Belonging

Researchers have also given considerable attention to school belonging, demonstrating that

it is a crucial protective factor for students and positively impacts academic and developmental outcomes (Allen & Bowles, 2012; Arslan, 2018). However, throughout its study, school belonging has been described using inconsistent terminology and definitions, creating challenges in determining a single definition (Allen et al., 2018, 2021; Allen & Bowles, 2012). According to Allen et al. (2018), who conducted a meta-analysis on interventions to foster school belonging, the various definitions of school belonging tend to share three operational commonalities: (1) a focus on school-based relationships, including peer relationships; (2) relationships between students and teachers; and (3) students' overall feelings toward school. Among these three commonalities, the importance of teacher support emerges within the literature as an especially salient component of school belonging (Allen et al., 2021).

Researchers exploring school belonging have demonstrated significant positive relationships with several essential student outcomes (Allen et al., 2018; Allen & Bowles, 2012; Slaten et al., 2016). Three main categories of findings regarding school belonging outcomes include academic achievement, mental health, and maladaptive behaviors (Slaten et al., 2016). First, a strong sense of school belonging in students is associated with academic achievement, including course grades (Pittman & Richmond, 2007; Sirin & Rogers-Sirin, 2004), academic motivation (Neel & Fuligni, 2013), and academic self-efficacy (Roeser et al., 1996). School belonging also negatively affects emotional distress (Lonczak et al., 2002) and reduces depressive symptoms (Newman et al., 2007).

According to research, factors that enhance school belonging include academic motivation, emotional stability, personal characteristics, parent support, peer support, teacher support, gender, race and ethnicity, extracurricular activities, and environmental safety (Allen et al., 2016). Of these factors, three of the most impactful are academic motivation, teacher support, and personal

characteristics, such as hope (Allen et al., 2016). Since academic motivation and hope show a positive relationship with goal setting, it is reasonable to assume a positive relationship may also exist between goal setting and school belonging. Further, due to the strong association between teacher support and school belonging, it is possible that a goal setting intervention that explicitly seeks to establish a sense of community between students, school counselors, and teachers around the goal setting process could also positively impact students' sense of school belonging. The strength of this relationship may also increase if some of the goals that individuals are setting are relational or social in nature.

Study Goals and Objectives

This study aimed to test the impact of TG as a classroom intervention through changes in students' hope and school belonging. Several variables were identified as covariates and controlled for in the analysis, allowing a clearer understanding of the relationship between intervention group status and the two primary outcome variables. These student-specific covariates included race/ethnicity, gender identification, grade level, and whether they received English language or Special Education services. The classroom-specific covariates included teacher years of experience, teacher gender, teacher race/ethnicity, and teacher's hope score.

Research Question 1: Does the TG classroom intervention have a significant impact on students' hope?

Research Question 2: Does the TG classroom intervention have a significant impact on students' sense of school belonging?

Methods

Procedure

Researchers used a quasi-experimental design to test the impact of the TG curriculum on middle school students' hope and sense of school belonging in a suburban school district in the

Midwest. The school district mandated the adoption of TG as an intervention for all students as part of their SEL program and provided four hours and 30 minutes of training on the intervention for all teachers through required professional development sessions. Though the students' classroom teachers delivered TG during their intervention period to maximize the number of students participating in the program, the school counselors remained integral in its implementation, preserving its nature as a school counseling intervention. This approach is similar to other school counseling social-emotional learning (SEL) curricula, including Second Step (e.g., Low et al., 2015) or Student Success Skills (e.g., Villares et al., 2023). In the present study, both schools' counseling departments oversaw the program's implementation by organizing the lessons, supporting teachers, and following up with individual students on their goal setting. Since educators delivered TG as a normal educational adoption, the study included only an analysis of the resulting data without any implementation fidelity checks.

Although the TG manual recommends spreading the lessons over eight to sixteen weeks, the school district decided to dedicate seven weeks to the program. The school district assigned teams of classrooms evenly, accounting for a balance in student grade level, to two groups: one participating in the seven-week intervention prior to the winter break and one participating in the intervention after the winter break. Though the assignment of teams to the two groups could not be truly random due to the school district's needs, the division of the classroom teams into two groups allowed for two treatment conditions: an intervention group and a delayed treatment/control condition. The researchers surveyed all students, regardless of treatment condition, at two points in time, prior to the start of the intervention for the treatment group and upon the completion of the treatment group's intervention. After the administration of both surveys, all students in the control condition participated in the intervention.

Researchers obtained university IRB approval, as well as teachers' consent and students' assent to participate in the study before completing the instruments. Researchers recruited teacher participants after they completed the district training for TG and recruited student participants during an intervention period within the school day. The study provided several notices to parents and caregivers detailing the study's goals and the topics of investigation. These notices also included instructions for parents regarding how to opt their child out of the study if they chose to do so. Students used their school-issued learning devices to complete their surveys during an intervention period, and teachers directed students to an email sent to their Google Classroom account with the link to the survey.

Participants/Sample

The primary sample for the study included middle school students from two middle schools. These two middle schools, which serve only seventh and eighth-grade students, include all the seventh and eighth-grade students in the school district, totaling approximately 1,900 students who had the opportunity to participate in the study. The second sample consisted of the classroom teachers who delivered the TG curriculum to the students over the course of the school year. Classroom teachers completed an online survey allowing for the control of classroom-level covariates that could confound the results. In total, researchers recruited voluntary participation from a maximum of 102 teachers who were trained in the intervention.

Of the 1,900 students who participated in the TG intervention, the study excluded only three students due to parent opt-out. In total, the researchers received survey responses from 1,621 unique student participants between the two schools and across the two survey administration periods. Since the two research questions focused on comparing hope and sense of school belonging between students who participated in the TG program and those who did not, the final data analysis included only cases with responses to the second survey. This selection narrowed the sample from

1,621 unique participants across the two survey administrations to 1,180 students from 94 classrooms (94 teachers) who completed at least the second survey. Table 1 provides an overview of the participant demographics.

Table 1
Participant Demographics

Student Demographic Item	Treatment Group		Control Group	
	<i>n</i>	%	<i>n</i>	%
Grade				
7 th Grade	239	37.8	330	60.2
8 th Grade	393	62.2	217	39.6
Race/Ethnicity				
Black/African American	141	22.3	161	29.4
Asian/Asian American	28	4.4	35	6.4
White/Caucasian	281	44.5	171	31.2
Latinx	10	1.6	18	3.3
First Nations	1	0.2	0	0
Bi/Multiracial	29	4.6	17	3.1
Not listed	20	3.2	24	4.4
Missing data	122	19.3	122	22.3
Gender				
Male	239	37.8	189	34.5
Female	232	36.7	209	38.1
Trans male/trans man	5	0.8	2	0.4
Trans female/trans woman	1	0.2	0	0
Genderqueer/Gender non-conforming	12	1.9	9	1.6
Prefer not to say	12	1.9	5	0.9
Not listed	4	0.6	2	0.4
Missing data	127	20.1	132	24.1
Qualify for free or reduced lunch				
Yes	78	12.3	90	16.4
No	235	37.2	150	27.4
Unsure	193	30.5	178	32.5
Missing data	126	19.9	130	23.7
English Learner				
Yes	50	7.9	51	9.3
No	342	54.1	278	50.7
Unsure	113	17.9	92	16.8
Missing data	127	20.1	127	23.2
Special Education				
Yes	38	6.0	37	6.8
No	378	59.8	291	53.1
Unsure	90	14.2	93	17.0
Missing data	126	19.9	127	23.2

Teacher Demographic Item	<i>N</i>	%
Race		
Black/African American	3	3.2
White/Caucasian	71	75.5
Bi/Multiracial	1	1.1
Not listed	2	2.1
Missing data	17	18.1
Gender		
Male	33	35.1
Female	38	40.4
Missing data	23	24.4

Note. *N* = 1,180 with *n* = 623 in the treatment condition and 547 in the control condition. Ninety-four teachers participated in the True Goals intervention, although some of the teachers opted out of the demographic questions or the survey.

Instruments/Measures

Researchers provided self-report surveys to students and teachers to account for classroom and student-level variables. The study asked all participants to complete the instruments through the online Qualtrics XM Platform. Including the demographic questions, the student survey included 30 items, with 24 being Likert-type questions.

Demographic Information

Demographic information was collected from the student and teacher participants to explore the sample's representativeness and inclusion of student-level and classroom-level covariates in the analysis. Student participants provided their race/ethnicity, gender identification, grade level, and whether they received English language or Special Education services. Teacher participants responded with their race/ethnicity, gender identification, and years of experience working as educators.

Hope

The study measured hope in both the student and teacher samples. Researchers provided teachers with the Adult Dispositional Hope Scale (ADHS; Snyder et al., 1991), and the analysis used the composite score as a covariate to assess the impact of the intervention on students' hope and

sense of school belonging. Snyder et al. (1991) reported evidence of validity and reliability for the scale across eight different samples, with factor loadings ranging from .45 to .85 across the eight samples with only one outlier (.21). Students completed the 6-item Children's Hope Scale (CHS; Snyder et al., 1997), which includes three items measuring agency thinking and three assessing pathways thinking. This scale asks child participants to respond to statements using six Likert-style choice options ranging from "none of the time" to "all of the time." This scale has demonstrated acceptable to strong internal consistency (Cronbach's $\alpha = .72-.86$) and significant test-retest reliability ($r = .71, p < .001$ after one month). Additional studies have provided evidence of cross-cultural validity for the CHS across diverse populations (Manuel et al., 2020; Metzler et al., 2023; Richter et al., 2024). In the present study, researchers conducted reliability analyses on the CHS for all student participants, and results indicated strong internal consistency on both the pretest (Cronbach's $\alpha = .85$) and posttest (Cronbach's $\alpha = .87$).

School Belonging

The study provided student participants with the 18-item Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993) to assess psychological membership or feelings of belonging. Participants respond to the items on a five-point Likert scale ranging from "not true at all" to "completely true." To avoid response sets, five of the items were negatively worded.

Goodenow's (1993) original study reported that the internal consistency for the samples ranged from .77 to .88. Reliability analyses on the PSSM from the present study indicated strong internal consistency on both the pretest (Cronbach's $\alpha = .91$) and posttest (Cronbach's $\alpha = .91$).

Additionally, Goodenow (1993) provided evidence of construct validity, noting group differences based on theoretical predictions regarding students' status as new enrollees, student social status, and school location. Ye and Wallace (2014) explored the scale's factor structure, resulting in four factors, with three substantive factors and one method factor.

Data Analysis

The present study sought to evaluate the impact of the TG classroom intervention on the latent constructs of hope and school belonging by utilizing SEM, a method of analysis that can address both the latent nature of the constructs and the nested nature of the intervention (Kline, 2023). Latent constructs are prone to measurement error, and SEM addresses this concern by explicitly modeling the measurement error (Kline, 2023). Multilevel SEM (MSEM) can account for the fact that TG is a classroom intervention expected to impact individual students, and data independence cannot be assumed. Ultimately, researchers reviewed the standardized direct and indirect effects of paths to understand the specific impact of the intervention on hope and school belonging (Hox, 2013).

Results

Preliminary Analyses

No univariate outliers were identified when testing for normality using frequency histograms, normal probability plots, scatterplots of standardized residuals, and the skewness and kurtosis of each variable. The results of the multivariate tests for normality indicated that the data were multivariate nonnormal with a two-sided multivariate skewness value of 33.165 ($p < 0.01$) and a two-sided multivariate kurtosis value of 602.214 ($p < 0.01$). As a result, researchers decided to use a robust estimator, MLR, to address issues with multivariate normality. In exploring the factor structure of both the CHS and PSSM, the researchers noted particular issues with the CHS. Ultimately, the researchers removed the second-order factor structure and treated hope as one latent construct comprising the six CHS items because of local under-identification and highly correlated first-order factors ($r = 0.98$).

Researchers also calculated means and standard deviations for hope and school belonging for the two intervention conditions. Student participants in the treatment condition had a mean

CHS pretest score of 24.03 ($SD = 5.26$), a mean CHS posttest score of 23.69 ($SD = 5.57$), a mean PSSM pretest score of 63.91 ($SD = 12.09$), and a mean PSSM posttest score of 54.35 ($SD = 9.13$). Similarly, student participants in the control group had a mean CHS pretest score of 24.11 ($SD = 5.82$), a mean CHS posttest score of 23.97 ($SD = 5.57$), a mean PSSM pretest score of 63.31 ($SD = 12.05$), and a mean PSSM posttest score of 53.92 ($SD = 9.40$).

Missing Data

To assess the missingness of the data, the researchers conducted Little's MCAR test. The results showed statistical significance ($\chi^2(1212) = 1343.19, p = .005$). Upon further analysis, the researchers found that the items for the CHS were missing at a much higher percentage rate than the items for the PSSM, except for the first item of the CHS. The decision to use the MLR estimator, which provides an approach to missing data that produces scaled χ^2 values, was further supported because the survey contained a high percentage of missing values and the results of Little's MCAR test were significant (Shi et al., 2021).

Intraclass Correlation

The researchers calculated Intraclass Correlation Coefficient (ICC) values for all exogenous variables, including the individual items for hope and sense of school belonging and the composite scores for both latent variables. Overall, the ICC scores for the individual items and composite scores of hope and sense of school belonging were very low ($\rho = 0.048$ for hope and $\rho = 0.056$ for school belonging). In several studies exploring the relationships between ICC values, sample and group sizes, and robustness issues, researchers described a small ICC value as 0.1 or lower (Bliese, 1998; Maas & Hox, 2004). In this case, researchers determined that the ICC values, well below 0.1 for both exogenous variables, indicated a weak clustering effect with a large amount of individual variability within groups and little variability between groups. Therefore, the researchers decided to remove the multilevel component of the analysis and simplify the models to a single level of analysis.

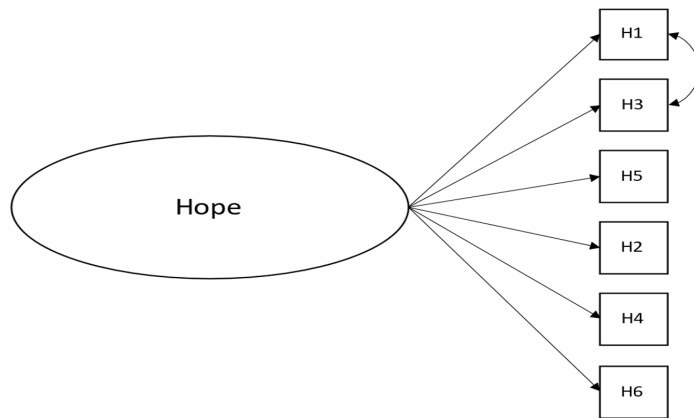
The analyses for both research questions were conducted with the MLR estimator using Mplus version 8.4. The researchers first assessed the measurement portion of each scale by conducting confirmatory factor analyses (CFA). They compared models using the Satorra-Bentler (2001) scaled chi-square difference test. Once the measurement models achieved adequate model fit, the researchers analyzed the paths between variables for the two research questions through full structural equation modeling. For all model analyses, the researchers utilized Hu and Bentler's (1999) recommended cutoff values to evaluate the goodness of model fit. Their recommendations included CFI values at or above 0.95, RMSEA values at or below 0.06, and SRMR values at or below 0.08. All results are reported as standardized values.

Measurement Models

Hope Measurement Model

The first measurement model analyzed was a CFA of the CHS, with all six items of the scale loading onto a single hope factor. Results demonstrated adequate model fit ($\chi^2(9) = 71.347, p < .001$; CFI = 0.969; RMSEA = 0.077; SRMR = 0.027). The researchers consulted modification indices above a value of ten to determine if it would be beneficial to correlate any of the items on the scale. With two highly correlated items that originally belonged to the same *agency thinking* factor, items one and three, the researchers correlated the error variances and re-ran the CFA. Results demonstrated good overall model fit ($\chi^2(8) = 29.314, p = 0.003$; CFI = 0.99; RMSEA = 0.048; SRMR = 0.017). To compare the two nested models, the researchers computed a chi-square difference test described by Satorra and Bentler (2001). The chi-square difference test produced statistically significant results ($\chi^2(1) = 40.9445, p < 0.001$). Therefore, the two models differed significantly, and the second model with the correlated error variance between the two items is preferred. The researchers determined that the resulting factor structure, shown in **Figure 1**, was adequate when conducting path analyses for research question one.

Figure 1
Hope Measurement Model



Sense of School Belonging Measurement Model

The researchers analyzed the second measurement model, conducting a CFA of the PSSM. The model analysis results demonstrated that the model fit the data well ($\chi^2(82) = 323.504, p < 0.001$; CFI = 0.951; RMSEA = 0.051; SRMR = 0.042). As with the model fit for the hope scale, although the chi-squared value was statistically significant, the other model fit indices suggested good overall model fit. The researchers examined all modification indices to determine if it would be beneficial to correlate the error variance for any items. The largest modification index indicated that the researchers should correlate the sixteenth and seventeenth items of the scale. Due to the similar nature of the two items and their inclusion as part of the same first-order factor, the researchers correlated the error variance of the two items and re-ran the CFA. The results demonstrated good overall model fit ($\chi^2(81) = 272.684, p < 0.001$; CFI = 0.961; RMSEA = 0.045; SRMR = 0.040).

The researchers computed a chi-square difference test to compare the two nested models. The results from this chi-square difference test were statistically significant ($\chi^2(1) = 67.8955, p < 0.001$). Therefore, the two models differed significantly, and the second model with the correlated error variance between the two items is preferred. The resulting factor structure, represented in **Figure 2**, was determined to be adequate when conducting path analyses for research question two.

Research Question One

The first research question analyzed the relationship between the intervention condition and students' hope. The initial analysis demonstrated good model fit ($\chi^2(13) = 37.546, p < 0.001$; CFI = 0.989; RMSEA = 0.040; SRMR = 0.018). After introducing student-level and classroom-level covariates into the model, only six were statistically significant and remained in the final model: teacher race/ethnicity, teacher gender, teacher years of experience, teacher hope, student race/ethnicity, and student grade level. The researchers reran the model with only these covariates, resulting in a good overall model fit ($\chi^2(64) = 227.838, p < 0.001$; CFI = 0.937; RMSEA = 0.047; SRMR = 0.046). Finally, the researchers analyzed the structural paths from the intervention variable to the latent hope factor, showing a nonsignificant impact of students' intervention conditions on their hope score (0.03, $p = 0.361$). **Figure 3** displays the full structural model for the first research question.

Figure 2
School Belonging Measurement Model

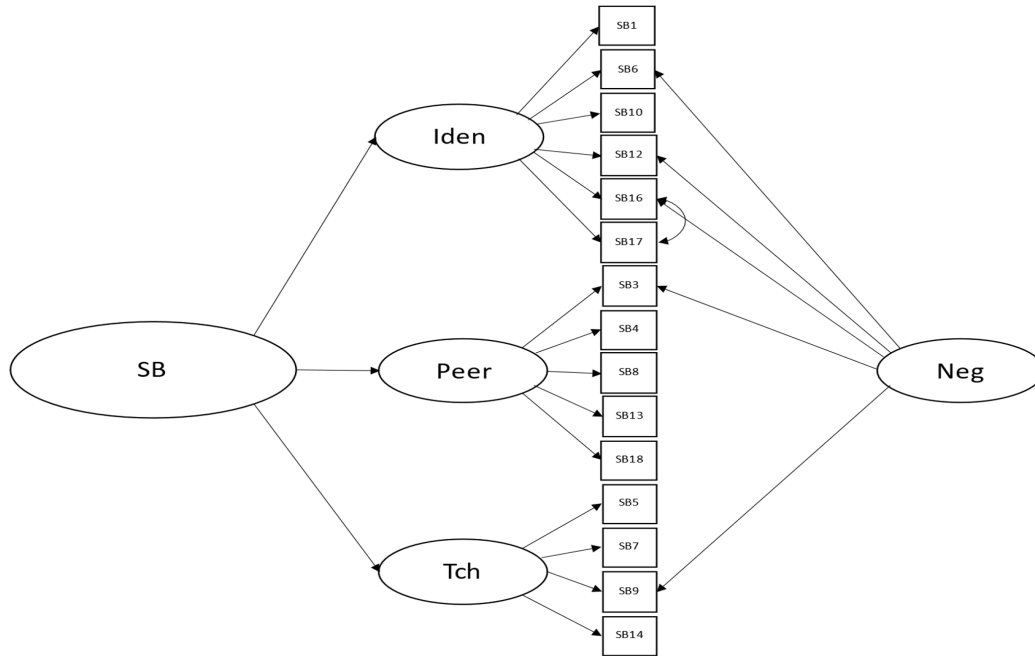
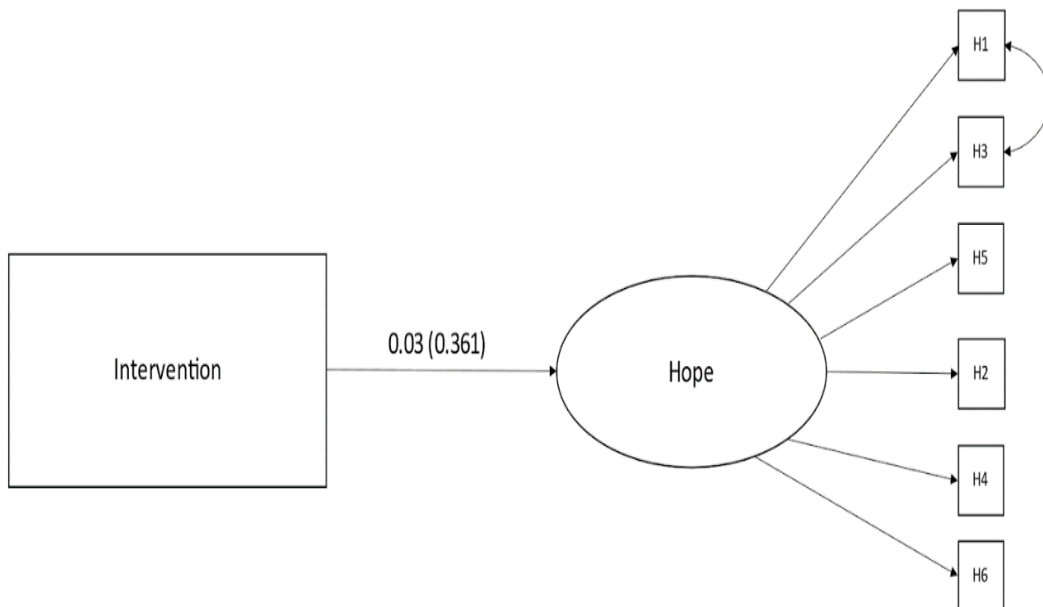


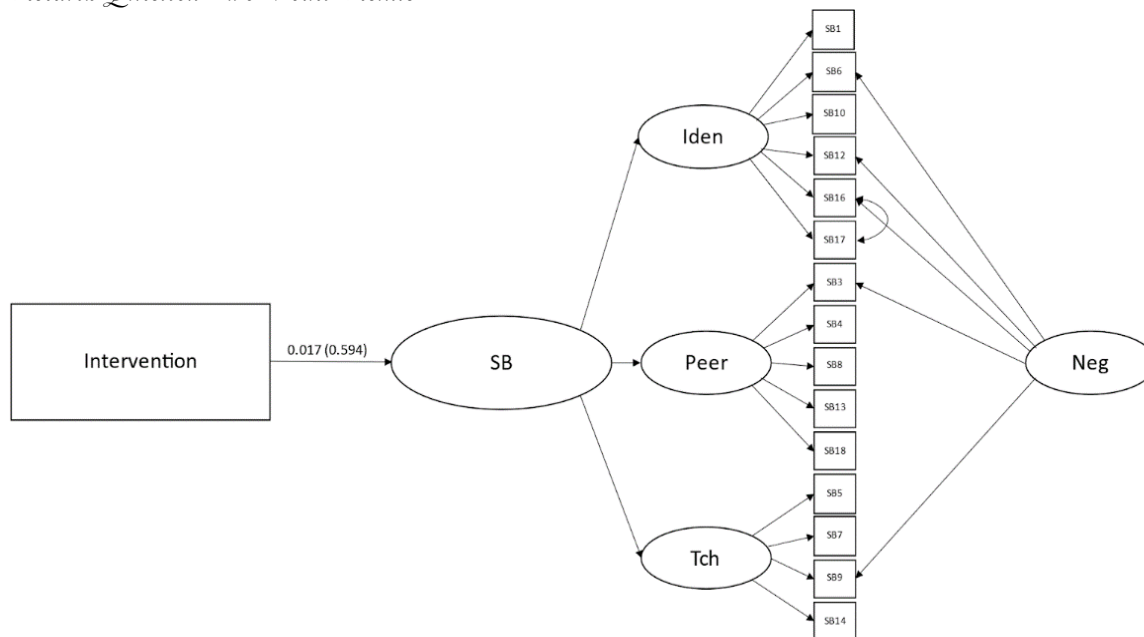
Figure 3
Research Question One Model Results



Research Question Two

The second research question concerned the relationship between the intervention condition and students' sense of school belonging. The initial analysis demonstrated good model fit ($\chi^2(95) = 294.264, p < 0.001$; CFI = 0.961; RMSEA = 0.043; SRMR = 0.040). After introducing all covariates and removing nonsignificant ones, the remaining covariates included teachers' race/ethnicity, teachers' gender, teachers' years of experience, students' race/ethnicity, and students' grade level. The resulting model fit the data well ($\chi^2(180) = 512.145, p < 0.001$; CFI = 0.943; RMSEA = 0.040; SRMR = 0.043). Lastly, the researchers analyzed the structural path from the intervention condition to students' sense of school belonging. The results showed a nonsignificant impact of students' intervention condition on their sense of belonging score ($0.017, p = 0.594$). **Figure 4** displays the full structural model for the first research question.

Figure 4
Research Question Two Model Results



Discussion

Results from the study showed a nonsignificant relationship between students' intervention conditions and the latent factors of hope and school belonging. These results were unexpected

because TG is an intervention designed to help students set and achieve goals over the intervention period. Through the program's design, students should successfully navigate the process while theoretically increasing their agency and pathways thinking and develop positive connections with peers. Other school counseling interventions incorporating goal setting have resulted in positive student outcomes. For example, a study exploring the impact of Student Success Skills, an intervention with a goal setting component, found significant treatment effects on student feelings of connectedness (Lemberger et al., 2015). Another study saw a five-week goal setting program positively impact students' hope, with residual treatment effects present 18 months later (Marques et al., 2011). Overall, social-emotional interventions delivered by school counselors tend to result in positive outcomes for students (Lemberger-Truelove et al., 2024), which calls into question if the content of the program or the fidelity of the intervention impacted the outcomes in this study.

According to the factor structure of the PSSM, students' sense of school belonging is composed of three factors: their general feelings toward school, relationships with peers, and relationships with teachers (Ye & Wallace, 2014). Historically, several interventions and programs have been demonstrated to positively impact students' sense of school belonging (Allen et al., 2022). Most of these interventions have focused on developing student strengths and fostering positive interactions among peers and between students and school staff (Allen et al., 2022). Because TG is a strengths-based, community-focused intervention that encourages sharing and conversations between peers and school staff, the researchers believed it would positively impact students' sense of school belonging when implemented as a classroom intervention.

The nonsignificant results from this study provide additional data for a conversation taking place in the field of school counseling regarding SEL delivery modality. In this case, the implications of this study are related to how school counselors can effectively collaborate with teachers to deliver safe, appropriate, and effective SEL curricula, such as a goal setting program. Without having

explicitly controlled for implementation fidelity, it is beyond the scope of this study to comment on the specific issues that generated nonsignificant results. However, anecdotal evidence suggested there may have been issues with teacher commitment to implementing the TG intervention.

One perspective is that school counselors should be the individuals in the building responsible for delivering these interventions (Slaten et al., 2024). Slaten et al. (2024) recently argued that school counselors are better suited to implement SEL curricula than teachers at the classroom level because their specific training in classroom guidance and mental health prepares them for this role within their training programs. While we agree this approach offers some merit, there are still questions related to the capacity of school counselors to effectively implement classroom interventions in a way that would meaningfully impact the student body of a school at large. The average school counselor-to-student ratio is 415-to-1, with many schools soaring above that ratio (American School Counselor Association [ASCA], n.d.). Therefore, it may not be feasible for school counselors to be the only educators delivering the SEL content through classroom lessons, and collaboration with teachers may be necessary.

A study by Cramer and colleagues (2021) found that teachers' baseline commitment to learning and delivering an evidence-based SEL program predicted implementation fidelity across time. Therefore, if teachers are required to be involved in the implementation of a classroom intervention in order to increase its reach, school counselors should focus on building collaborative relationships with the teachers in a way that promotes teacher commitment. Additional research is required into how school counselors can best support teacher-led SEL classroom interventions.

Limitations

One aspect of the study design that may have led to the nonsignificant results is the implementation fidelity of the program. The TG manual (Martin, 2021) recommends spreading the ten principles of TG across eight to sixteen weeks when implementing the program as a classroom

intervention. Unfortunately, the school district required the intervention to be condensed into seven weeks. This change may have impacted the effectiveness of the intervention.

Additionally, as discussed in the methods section, the TG program was implemented by teachers across 94 classrooms after receiving four hours and 30 minutes of training on the intervention. The researchers decided to exclude a measure of implementation fidelity for the teacher participants due to the extra burden this would place on these educators, who had already been tasked with adding this new intervention to their workload. Due to the decision not to measure implementation fidelity, it cannot be stated empirically that implementation fidelity was low; however, anecdotal evidence suggests this was the case. The participating district's school counseling programs facilitated the TG intervention. As a result, the school counselors monitored the program's implementation and reported teachers' complaints that they felt overburdened and underqualified to implement it. Although the teachers may have received several hours of training, this did not necessarily mean they felt committed to or confident in delivering the content. Additionally, school counselors who occasionally substituted for teachers for the lessons reported that students were behind on the lessons or had not yet set goals. Finally, the lead author was present during the intervention and noted that it appeared difficult to run an intervention at this time of day, as school announcements, office calls, and other programs were occurring simultaneously. Ultimately, inconsistencies appeared across classrooms in the program's implementation.

Another significant limitation of the study related to the sample is the large amount of missing data. Applied educational research, particularly research with self-report student surveys, commonly faces this issue (Peugh & Enders, 2004). Although the estimation method can help account for issues with missing data, researchers should consider its causes and potential impact on the results. One possible reason for the large amount of missing data throughout the survey responses concerns the lack of incentive for the student participants to complete the surveys. The

researchers provided no incentive for students to participate in the study and did not require participants to answer any or all questions. The researchers intentionally made these decisions to follow best practices for ethics around forced responses in survey research and to avoid introducing bias by offering rewards or incentives (Ray, 1990). However, a different form of bias may arise when large portions of students choose not to participate or skip questions. The researchers could not be certain if trends existed among the students who chose not to participate or skipped large portions of the surveys. Students who did not participate may have had lower hope scores or lower scores for sense of school belonging, and their data would have been valuable for the study. Therefore, missing data is a significant limitation of the study.

There are additional limitations with the research design and analysis that could have impacted the results or that may limit generalizability. The first limitation concerns the use of self-report instruments. Generally, studies that rely on self-report measures are vulnerable to social desirability bias, which is the tendency of respondents to provide inaccurate responses to present themselves favorably (Krumpal, 2013). Social desirability bias is a form of systematic error that can skew the results. To prevent extending the questionnaire length and avoid risking participant fatigue, the researchers did not include social desirability scales for students or teachers. Therefore, the researchers cannot confidently state that the results are free of bias.

The second limitation concerns the research design. Ultimately, the school district decided the classroom groupings for the intervention to accommodate their schedule and teaming. While the school district tried to balance the two groups regarding grade level distribution, it could not create genuinely equivalent groups according to various demographic criteria. Therefore, the study was quasi-experimental, and due to the lack of randomization and nonequivalent groups, bias may be present in the data.

There are also limitations with the sample related to the sampling method. First, the study's

sample qualifies as a non-representative convenience sample because it includes only students from two middle schools in one school district. Therefore, the results of this study may not be generalizable to a larger population of students. Additionally, parents and caregivers could opt their children out of the study, and the students themselves could elect not to complete the surveys, a choice that many students made. Ultimately, this approach created non-equivalent treatment and control groups. One implication is that the sample may be biased toward a specific type of individual who would elect to take an optional survey with no personal incentive. As a result, the sample does not represent students who elected not to participate, and the researchers cannot predict how their data may have changed the study results.

Recommendations for Future Research

The results of the current study provide a natural transition to several additional lines of research. Although the study produced nonsignificant results, the theory still supports the idea that the TG intervention would positively impact students' hope and sense of school belonging. Therefore, the first recommendation would be to refine the research design and rerun the study. Researchers could implement several changes to the study design to improve the results.

The first recommendation is to investigate ways to improve or account for implementation fidelity. Future studies could include a measure of implementation fidelity in the survey for the teachers or run the study entirely through the school counselors. Researchers may find that the TG intervention, despite refinements to the study design, would not be effective as a classroom intervention. Therefore, it could be worthwhile to rerun a similar study but test the impact of TG as a small group intervention instead of a classroom intervention. This would involve school counselors running the intervention with small groups of two or three students at a time and using the same variables from the present study. Prior research has demonstrated that TG as a small group intervention effectively builds students' motivation, self-knowledge, self-direction, positive

relationships, and social self-efficacy (Martin, Choi, et al., 2022; Martin, Cunningham, et al., 2022; Zyromski et al., 2019). Therefore, we can expect that TG may positively impact students' hope and sense of school belonging when implemented as a small group intervention.

Another recommendation for future research would be to conduct a similar study on the impact of an intervention on students' hope and sense of school belonging and include academic outcome variables in the structural equation model. Researchers should also apply a critical lens to these data, including a discussion of the systemic factors impacting students' hope, sense of school belonging, and academics in the analysis. This approach typically works best in studies across several schools where environmental and school-level factors could be accounted for through multilevel modeling.

Conclusion

This study assessed the impact of TG, a school counseling goal setting curriculum, on middle school students' hope and sense of school belonging when implemented as a classroom intervention. In doing so, the researchers sought to provide additional evidence for TG, which is an intervention that had already demonstrated positive impacts on students' motivation, self-knowledge, self-direction, positive relationships, and social self-efficacy when used as a small group intervention (Martin, Choi, et al., 2022; Martin, Cunningham, et al., 2022; Zyromski et al., 2019). Results from the study show that the intervention had a nonsignificant impact on students' hope and sense of school belonging.

Broadly, this study provides necessary contributions to the field of school counseling, a field that is in great need of rigorous intervention research (Griffith et al., 2019; Lemberger-Truelove et al., 2021). Researchers conducting a content analysis of American School Counselor Association and American Counseling Association-affiliated journals found that a mere 0.08% of articles published from 2006 to 2016 were school counseling intervention studies (Griffith et al., 2019). Furthermore,

among these studies, researchers found that the vast majority published were single-group studies with a small number of participants (Griffith et al., 2019). School counselors need rigorous intervention studies with large samples and advanced analysis methods to provide evidence for their interventions. Despite the nonsignificant results, the present study contributes to the growing list of rigorous intervention studies in school counseling.

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