

Teacher Use of School Connectedness Strategies With Underrepresented Youth in a Low-Income Middle School

Deborah E. Tyndall, Mitzi C. Pestaner, Shannon B. Powell,
Travis E. Lewis, and Carlos R. Melendez

Abstract

Adolescents in low-income and rural communities are at a higher risk for mental health concerns. This study used a mixed-methods, community-based participatory research design to examine teachers' experiences managing students with emotional and mental health needs in a low-income middle school serving underrepresented youth. Barriers to connecting positively with students included disruptive student behaviors, a lack of student interest, and an emphasis on accountability measures for academic achievement. Three themes emerged: (a) disruptive student behavior resulted in a whack-a-mole approach to managing emotional health needs; (b) learning was often put on the back burner as teachers attempted Maslow before Bloom; and (c) a lack of training and limited time to connect positively with students contributed to missed connections. Findings from this study indicate that additional resources and staff training are needed to help rural, low-income schools support students who have emotional and mental health needs.

Mental, emotional, and behavioral health concerns are prevalent among adolescents in the United States (Ghandour et al., 2019). Adolescents adjusting to middle school are particularly vulnerable due to the misalignment between their developmental needs and the structural characteristics of a middle school environment (Loukas et al., 2016). While seeking to become independent, adolescents still need reciprocal decision-making and close relationships with peers and nonparental adults. Middle schools present barriers to these needs due to larger school sizes, more complex curricula, departmentalization as students rotate classes, and less opportunities to develop relationships with teachers (Loukas et al., 2016; Nadeem et al., 2011). These barriers also present difficulties for school staff, who often lack awareness of students' mental health needs and are challenged with the need to focus on academic priorities (Nadeem et al., 2011). Similarly, relationship challenges between parents and adolescents may exist, as parental involvement with students often decreases during the middle school years (VanValkenburgh et al., 2021).

Although mental health is a concern for middle school students, treatment gaps remain. Adolescents in low-income and rural communities may be at a higher risk for delayed or inadequate treatment due to family poverty, stigma, or lack of resources as compared to adolescents in urban communities (Blackstock et al., 2018). A factor contributing to this disparity may be

the shortage of mental health providers in rural areas (Goldman-Mellor et al., 2018). Notably, all counties in rural North Carolina (NC) have reported shortages of mental health providers (Rural Health Information Hub, 2022), which often means that schools must provide these services to students (Stempel et al., 2019).

To improve students' mental health, schools have implemented strategies to enhance school connectedness (Oldfield et al., 2016). Studies have found a positive association between school connectedness and improving mental health in adolescents (Kim et al., 2020; Liu et al., 2021). School connectedness can also promote educational engagement and academic success while decreasing truancy and dropout rates (Blum & Libbey, 2004). School-based interventions can be critical, especially in low-income, rural schools, as these students may be at a higher risk for mental health problems (Fang, 2018).

School connectedness has been described as adolescents' belief that adults and peers in their school care about them and their learning (Centers for Disease Control and Prevention, 2018). School connectedness reflects a school's ability to engender a sense of affiliation among students (Wang & Degol, 2016). School connectedness consists of three major components: (a) school bonding and attachment, or the extent to which students can develop and sustain relationships; (b) school engagement in extracurricular and academic activities; and (c) school climate, which

comprises students' perceptions of safety, equity, and whether school staff value diversity (Klinck et al., 2020). School connectedness can be developed by facilitating a safe and supportive school environment characterized by high expectations from teachers, fair and consistent discipline, and effective teaching strategies and curriculum (Blum & Libbey, 2004).

Adolescents who have unmet mental health needs may display behaviors such as withdrawal, disruptiveness, or defiance (Klinck et al., 2020). Teachers in K–12 school settings are often on the front lines of identifying these behaviors and are well, though, inadvertently, positioned to implement interventions and refer students who need additional support (Dimitropoulos et al., 2021). Given this positioning, it is prudent to involve teachers in interventions to enhance school connectedness. Strategies such as enhancing teacher–student relationships, seeking student input in decision-making, and showing respect and inclusivity have fostered school connectedness (Hawe et al., 2015; Mann et al., 2015). However, teachers report barriers to implementing these strategies, including a lack of time and the need for professional development (Bower et al., 2015). Since studies have shown that school connectedness declines as students progress through middle school (Loukas et al., 2016), these reports are concerning.

Most research investigating mental health outcomes associated with school connectedness has been conducted among White, high school, or urban students (Klinck et al., 2020). More research is needed with African American and Hispanic middle school student populations, as they have reported less-favorable experiences of connectedness (Voight et al., 2015). To address this inequity, a community-based participatory research (CBPR) approach (Israel et al., 2013) was used to partner with a rural public middle school to answer the following research questions:

1. What are teacher reported behaviors that may be indicative of student emotional health needs at a low-income, rural public middle school?
2. What is teachers' self-reported frequency of using and barriers to using school connectedness strategies?
3. What teacher experiences explain the use of school connectedness strategies with adolescents with emotional health needs?

Theoretical Framework

Urie Bronfenbrenner's (2005) bioecological theory of human development is an effective framework to guide research on school connectedness. The theory posits that interactions in the child's immediate environment and bidirectional interactions with larger contexts outside the immediate environment (i.e., microsystem) influence the child's developmental outcomes (Bronfenbrenner, 2005; Hickey et al., 2012; Nyberg et al., 2019). The microsystem contains individuals with whom the child regularly interacts, such as parents in the home or teachers in school (Hong et al., 2011). Modifying the school environment to include school connectedness strategies may impact a child's development by facilitating positive academic and mental health outcomes. Facilitating school connectedness at the micro level might look like bolstering quality relationships, such as by greeting students by name (Joyce & Early, 2014).

Beyond the child's immediate environment, there are larger contexts to consider for enhancing school connectedness. Mesosystemic influences may include interactions that occur indirectly through parental involvement with the student's academic work and directly through parental involvement with the school (Chappel & Ratliffe, 2021). Additionally, building trusting relationships with students and parents can be effective; for instance, schools might facilitate parent engagement with regular meetings to discuss students' progress or provide classes for parents on positive parenting skills (Joyce & Early, 2014; Klinck et al., 2020). The exosystem consists of actions that influence processes occurring within a child's immediate environment (Bronfenbrenner, 2005; Hickey et al., 2012; Nyberg et al., 2019). District policies that support small class sizes and practices that support student input, independent decision-making, and positive reinforcement within the school are all strategies to consider (Joyce & Early, 2014; Klinck et al., 2020). Finally, the macrosystem consists of cultural or societal norms that guide the other systems (Bronfenbrenner, 2005; Nyberg et al., 2019). Since racial and ethnic differences related to school connectedness have been identified (Voight et al., 2015), strategies such as promoting culturally responsive teaching and activities that celebrate and show respect for diversity may positively influence school connectedness (Joyce & Early, 2014; Klinck et al., 2020).

Methods

A sequential explanatory mixed-methods research design (Chiang-Hanisko et al., 2016) using a CBPR approach was used to study the emotional needs of students in a low-income school through the perceptions of teachers. Quantitative data (i.e., surveys) were collected first, followed by qualitative data (i.e., focus groups) that helped contextualize the quantitative data.

Community-Academic Partnership

In January 2019, the lead author (DT) participated in our university's Engagement and Outreach Scholars Academy (EOSA). This 12-month program offers skill development in engaged scholarship and provides faculty with a \$5,000 award to implement a community-engaged research project. During the first 5 months of the academy, tenets of CBPR (Israel et al., 2013) were applied while developing a partnership with a local middle school. Entrée into the middle school setting was facilitated by the lead author's ongoing collaborative partnerships with the school district over the past decade. Of note is that DT lives in the community where the middle school is situated and previously attended K–12 Title I-funded schools within the same district. A memorandum of understanding provided structure for the partnership and established a timeline for the project, partner roles and responsibilities, and resource contributions. For example, the university provided research assistance in the form of a doctoral student (MP) and three Honors College undergraduate students completing a course in community-engaged scholarship. The university also provided funding to support the project, and the middle school made resource contributions by making teachers available for recruitment purposes as well as providing a space to conduct partner meetings and focus groups.

To support an equitable community-academic partnership (Israel et al., 2013), both partners shared ownership of all aspects of the project, including development, implementation, evaluation, and dissemination (see Table 1). This collaboration was facilitated by monthly partner meetings at the middle school. It was during these meetings that the community partner identified the following strategic plan priority based on their comprehensive needs assessment of instructional excellence and alignment: "All teachers are attentive to students' emotional states, guide students in managing their emotions, and arrange for supports and interventions when necessary." Once this priority

was identified, meetings focused on cocreating research questions, methods, and instrument selection. While the research team took the lead in offering design strategies (e.g., surveys and focus group questions), the community partner provided practice expertise and insider perspectives. During implementation, the community partner took the role of participant by completing surveys, contributing to focus groups, and member checking. The community partner also contributed to the evaluation of the study's findings by providing input on recommendations for practice. Additionally, implications for the middle school were translated into the cocreation of goals for Phase II (see the Limitations and Future Research section of this article). While the community partner contributed to dissemination by giving considerable feedback on the content shared within this article, both partners agreed not to pursue coauthorship to protect the school's identity.

Setting

The community partner is a rural public middle school located in NC that receives Title I funding. The middle school serves approximately 400 sixth, seventh, and eighth graders, with a student population composed of 56% African Americans, 22% Hispanics, 17% European Americans, and 5% students of two or more races (National Center for Education Statistics, n.d.). Seventy-two percent of students are eligible for free or reduced-price lunches, as compared to the state average of 44.3% (NC Department of Public Instruction, n.d.). The school also has a record of low literacy achievement on standardized assessments and has faced challenges with teacher retention. At the onset of the project, in-school suspension rates were 7 times higher than those of the county or state, bullying rates were 9 times higher, and average class sizes were also higher than those of the county or state (NC Department of Public Instruction, n.d.). In 2018–2019, school data revealed that nearly half of all students ($n = 181$) were referred to the school counselor for disruptive behavior, for a total of 1,224 referrals that academic year.

The school typically employs 18 core and eight electives teachers; during the time of this study, however, there were several vacancies. A student support services team of school administrators (i.e., principal, assistant principal) and support staff (i.e., counselor, social worker, school nurse) meets monthly to determine and monitor students' academic and health needs. While the counselor

Table 1. Roles in Design, Implementation, and Evaluation of Phase I EOSA Project

Research project activities	EOSA faculty	Middle school administrators	Middle school support team	University research team	HC/doctoral students	Middle school teachers
CBPR professional development						
Complete CBPR program	x					
Mentor CBPR tenets	x					
Receive CBPR mentoring		x	x	x	x	
Project development						
Establish memorandum of understanding	x	x				
Create research questions	x	x	x			
Design research project	x	x	x			
Select/develop instruments	x	x	x			
Project implementation						
Recruit participants	x				x	
Monitor data safety	x			x	x	
Collect and manage data	x			x	x	
Complete surveys		x	x			x
Conduct focus groups	x				x	
Participate in focus groups		x	x			x
Analyze data	x			x	x	
Participate in member checking		x	x			x
Project evaluation						
Evaluate findings	x	x		x	x	
Examine implications for middle school	x	x		x	x	
Examine recommendations for practice	x	x		x	x	
Establish goals for Phase II	x	x	x	x		
Secure funding for Phase II	x			x		
Project dissemination						
Lead manuscript writing	x			x	x	
Provide input into findings/discussion		x				

Note. EOSA (Engagement and Outreach Scholars Academy); CBPR (community-based participatory research); HC (Honors College)

provides services to the middle school only, the social worker has a caseload of nine other schools within the district, and the school nurse has five other schools.

Procedures and Measures

This study was approved by the institutional review board at East Carolina University and the middle school's district. To begin the recruitment process, two members of the research team (DT, MP) attended a staff meeting during the first week of school. Staff were introduced to the background of the community-academic partnership and provided an overview of the study. In September 2019, the Teacher School Connectedness (TSC) and Teacher Reported Behavior (TRB) surveys were distributed by email using Qualtrics. The 28-item "Use of Connection-Building Strategies" section of the TSC survey (Vidourek & King, 2014) was used to assess how frequently teachers used school connectedness strategies via a 5-point scale (1 = *Never*, 2 = *Less than once a month*, 3 = *Once a month or more*, 4 = *Once a week or more*, 5 = *Everyday*). Higher scores corresponded to more frequent use of a strategy. The Cronbach's alpha (i.e., reliability coefficient) of this instrument when originally developed (Vidourek & King, 2014) and in the current sample were .84 and .92, respectively. Those results indicate that the internal consistency of this section of the survey was good to excellent in both the original and current study. Internal consistency reliability was established for the subscales by computing Cronbach's alphas, and stability reliability was confirmed. Data were also analyzed from the section of the survey capturing teacher responses to a list of barriers: "Which, if any of the following, prevents you from positively connecting with your students?"

The TRB survey, a researcher-developed tool, was used to assess how often teachers observed

specific student behaviors that could be indicative of emotional health needs. Teachers reported frequency of the behavior using a 6-point scale (1 = *Never*, 2 = *Very rarely [once every 2–3 months]*, 3 = *Rarely [once a month]*, 4 = *Occasionally [2–3 times a month]*, 5 = *Frequently [2–3 times per week]*, and 6 = *Very frequently [every day]*). Prior to survey completion, an online informed consent was obtained. Participants who completed both surveys received a \$10 gift card incentive.

In October and November 2019, five focus groups were conducted using a semistructured interview protocol created based on TSC and TRB survey results. Processes and procedures as described by Doody et al. (2013a, 2013b) were used to conduct the focus groups. Teachers, administrators, and support staff were recruited via emails sent by a doctoral research assistant. Four focus groups were held with teachers, who were grouped and assigned by grade level or electives. A fifth focus group was conducted with clinicians and administrators to gain additional perspective from support staff. See Table 2 for focus group questions. Each group consisted of four to six participants, was audio-recorded, and lasted 1 hour. Consent forms were collected prior to the focus groups. Participants received a \$30 gift card incentive.

Focus groups and key informant interviews were conducted during the 2015–2016 academic year by one moderator (NS) to maintain consistency across sessions. Sessions were audio-recorded. Participants first completed a demographic questionnaire, which included age, sex, and race/ethnicity, role in the school, marital status and education level. Focus groups were approximately 60 minutes and interviews ranged from 15 to 25 minutes. All participants received a \$25 gift card for participation.

Table 2. Semi-Structured Interview Protocol

Survey results	Example prompt to elicit teacher experiences
Teacher Reported Behavior (TRB)	Being disruptive was one of the most common reported behaviors observed in students. What specific behaviors have you observed?
	What are your concerns working with students who may have emotional health needs?
Teacher School Connectedness (TSC)	What strategies do you use to address disruptive or "acting out" behaviors?
	What factors contribute to and/or prevent you from being able to successfully use this strategy?

Data Analysis and Integration Procedures

Analysis of the quantitative data was conducted using IBM SPSS statistical software, version 27.0, and SAS 9.4. Descriptive statistics were used to provide a representation of the sample demographics, student behaviors observed by teachers, and use of school connectedness strategies.

Qualitative data were examined using the phases of thematic analysis to establish trustworthiness (Nowell et al., 2017). Two of the researchers conducted first and second cycle coding (Saldaña, 2016) by independently and then jointly reviewing transcripts. The most significant occurring codes were identified and compared to facilitate the collapsing of codes into categories. Three researchers integrated significant findings using illustrations of dominant categories and subcategories. Thematic analysis was an iterative process involving repetitive reflection on exemplars, categories, and subcategories, which culminated in three predominant themes. Themes were presented to teachers during a staff meeting for member checking, and a follow-up survey to assess agreement confirmed the analysis.

An integrated analysis was generated by mixing both quantitative and qualitative findings (Poht, 2018). Specifically, a qualitative-dominant crossover mixed analysis (Hitchcock & Onwuegbuzie, 2020) was used to compare qualitative themes with descriptive statistics from surveys. While qualitative analysis with descriptive statistics is considered the lowest level of integration (Hitchcock & Onwuegbuzie, 2020), the addition of the quantitative data supported the team’s ability to answer Research Question 3. Using the dominant data from three qualitative thematic categories, quantitative data was integrated to generate areas of convergence and divergence.

Results

Participants

Fourteen (64%) out of 22 employed teachers completed the surveys. While most participants had more than 10 years of experience, 79% had been teaching at the school for less than 3 years. Teacher demographic characteristics are presented in Table 3. A total of 20 teachers (91%) and six administrators/clinicians participated in focus groups. Seventy-seven percent ($n = 20$) of focus group participants had been employed at the school for less than 3 years. The majority of the participants were female (65%), White (77%), and aged 45 years or older (54%).

Survey Results

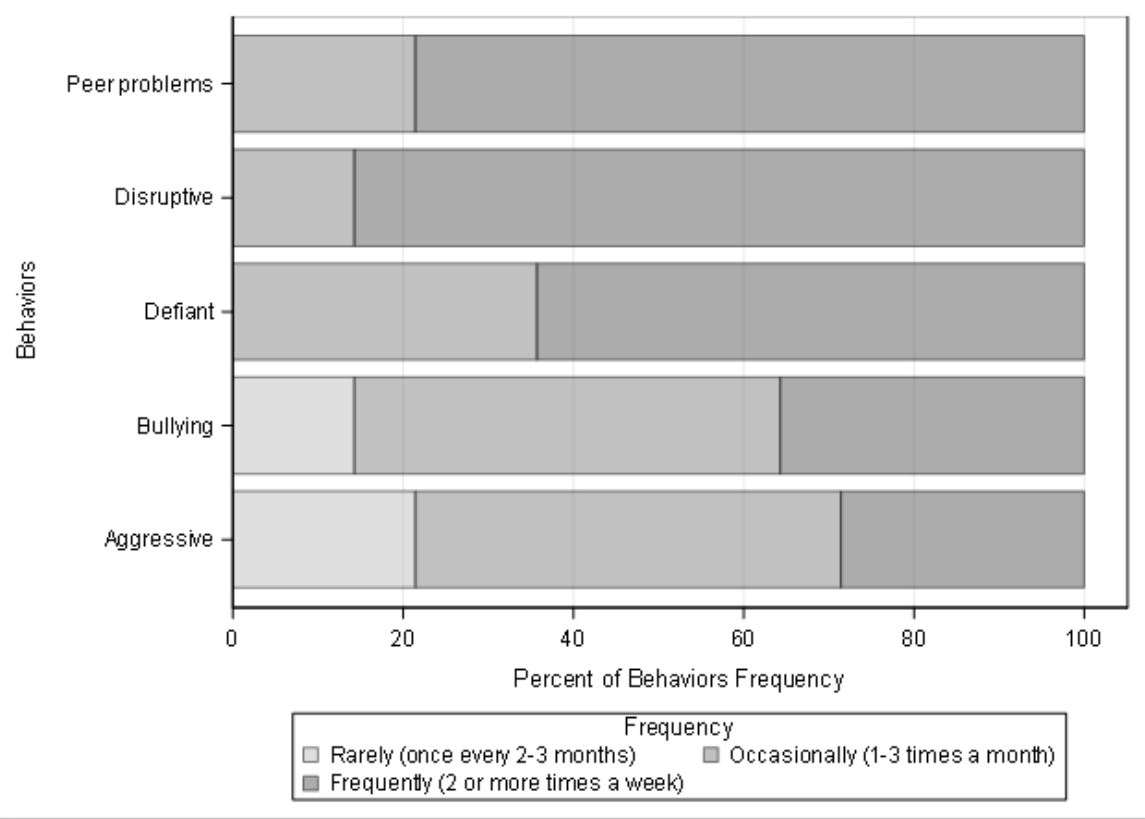
Teacher Reported Behaviors. Figure 1 lists the types of teacher reported student behaviors. The most frequently reported behaviors were being disruptive/acting out, defiance, and problems with peers. Thirty-six percent of teachers reported bullying that occurred at least twice a week. Twenty-nine percent of survey respondents reported aggressive behaviors occurring 2–3 times a week.

Teacher School Connectedness and Barriers. Some of the most common school connectedness strategies teachers used included offering praise to students, actively listening, and showing students they cared about them. Less frequently used strategies were involving parents in student activities and encouraging students to get involved in their community (see Table 4). Lack of parental

Table 3. Characteristics of Teachers ($N = 14$)

Characteristic	<i>n</i>	%
Age		
25–34	2	14.3
35–44	2	14.3
45–54	7	50.0
55–64	3	21.4
Gender		
Female	11	78.6
Male	3	21.4
Ethnicity		
African American	1	7.1
White	13	92.9
Education level		
Bachelor’s	7	50.0
Master’s	7	50.0
Years of overall experience		
1–3	1	7.1
4–5	1	7.1
6–10	5	35.7
11–20	6	42.9
> 20		
Years at the school		
1–3	11	78.6
4–5	3	21.4

Figure 1. Teacher-Reported Student Behaviors



involvement was the most frequent barrier, reported by nine (64%) of the 14 teachers. Fifty percent of the teachers reported a lack of student interest and the school district’s emphasis on increasing state proficiency test scores as barriers. Other barriers included lack of time (43%), emphasis on academic achievement (29%), and lack of knowledge (14%).

Focus Group Results

Teacher experiences were explored to explain the use of school connectedness strategies with students. Data analysis revealed three themes describing teacher experiences: whack-a-mole, Maslow before Bloom, and missed connections. Themes were observed across all five focus groups.

Whack-a-Mole. Participants described frequent attempts to manage student behaviors in the classroom. One teacher participant compared behavioral management to the popular arcade game Whack-a-Mole. Rather than using a soft mallet to “whack” moles that randomly pop up and disappear, teachers tried strategies to connect with students or de-escalate behaviors. As in the game, however, teachers often found that while

one student behavior may have been resolved, another would quickly appear. As a result, teachers spent a lot of their time redirecting behaviors, which often interrupted the learning environment. Further, classroom management approaches were often hit-or-miss, leading to temporary fixes or resulting in only minor improvements. Classroom management was often described as a quick, Band-Aid solution for addressing outward behaviors.

Many of the participants acknowledged that student behaviors may have indicated underlying emotional health needs. One teacher noted:

The anxieties that I see are those behaviors that don’t come out like anxiety behaviors. I think that’s what we’re seeing in a lot of kids. Their anxieties are coming out in defiance. ... They’re drawing attention to themselves in certain ways to direct it away from their academics.

In response to the high rate of referrals for disruptive behaviors, school administrators implemented a “bounce program.” This program

Table 4. Teachers' Reported Strategies for Positively Connecting Students to School (*N* = 14)

Item	<i>Mdn</i>[†]	<i>M</i>[‡]	<i>SD</i>[*]
How often you ...			
Use strategies to try to get your students positively connected in your class (feel like they fit in or belong)	5.00	4.57	0.756
Offer praise to your students	5.00	4.86	0.535
Call students by their first names	5.00	5.00	0.000
Use icebreakers to get students to know one another	2.00	2.64	1.216
Smile when teaching in class	5.00	4.86	0.535
Use humor when interacting with students	5.00	4.79	0.579
Encourage student discussion in class	5.00	4.71	0.611
Spend time engaging students in conversations about their daily lives	5.00	4.79	0.426
Try to relate to your students and get to know them better	5.00	4.86	0.363
Try to show your students that you respect them	5.00	5.00	0.000
Actively listen to your students when they are speaking to you	5.00	5.00	0.000
Show your students that you care about them	5.00	4.93	0.267
Tell your students that you care about them	4.50	4.50	0.519
Provide students with opportunities to show responsibility in the classroom	5.00	4.71	0.825
Try to act as a positive role model for students	5.00	5.00	0.000
Allow students to make low-level decisions in class	4.50	4.36	0.842
Set high expectations for achievement	5.00	4.79	0.802
Set rules for students to show respect to one another	5.00	4.79	0.579
Enforce rules of student respect	5.00	4.79	0.579
Use cooperative learning in class	4.00	4.00	1.240
Divide students into small groups in class	4.00	4.00	1.240
Make small talk with students before/after class	5.00	4.71	0.469
Share personal stories or experiences during class to try to reach students	5.00	4.57	0.514
Encourage students to share their feelings	5.00	4.50	0.760
Encourage and motivate your students to do their best in class	5.00	4.79	0.579
Involve parents in student activities (such as homework assignments)	3.00	3.14	1.167
Encourage students to talk to their parents	4.00	3.71	0.825
Encourage students to get positively involved in their community	3.50	3.36	1.082

Note: [†] *Mdn* refers to median. [‡] *M* refers to mean. ^{*} *SD* refers to standard deviation of the mean.

promoted continuation in the instructional environment by permitting students to “bounce” to a different classroom for 10–15 minutes to reflect and regain focus. This provided teachers with an immediate strategy to regain control of the class and gave students an opportunity to avoid disciplinary action. Despite this new strategy, teachers still felt overwhelmed trying to manage the classroom and meet educational benchmarks. One teacher described:

I feel like mental health is something that, as an educator, we are always expected to handle but we don't feel like we're capable ... we don't have the skills to do it. So, most of the time ... I let the administration know ... what my day-to-day is like so when benchmarks come out [they will] keep [their] expectations realistic because I'm not working miracles here.

Both administrators and school clinicians confirmed that the time-consuming demands of classroom management added to teacher frustrations and challenges with meeting expectations for educational benchmarks. Administrators acknowledged that teachers “are just trying to deal with it in a hurry and move on” to manage the dynamics of the classroom. As one described:

Just, the enormous amount of time and resources and energy on the parts of the staff to deal with that every day, day in and day out, amongst all of your other job responsibilities ... because everything gets pushed to the side when you're dealing with those volatile situations.

Maslow Before Bloom. “Maslow before Bloom” describes staff acknowledgment of the importance of meeting basic needs—Maslow's hierarchy of needs (Maslow, 1943)—before learning can occur—Bloom's taxonomy (Bloom, 1956). Disruptive behaviors and students acting out were seen as coping mechanisms, “hurt people hurting people,” as many students were described as not having coping skills or the ability to “self-regulate.” As a result, learning was often put on the back burner as participants attempted to address these unmet emotional needs. One teacher said:

If I didn't have to teach math, I might could actually help with some of these relationship issues and peer relations and anxiety, but I'm supposed to be teaching math. ... I think they need a lot more

support than probably what folks realize. ... Kids need to have time that's not a lot of brain-thinking, that little bit of Maslow before Bloom.

An administrator affirmed teacher experiences by stating, “If you don't have good social-emotional stability, the instructional and academic piece is not going to be what it needs to be.” Teachers were also concerned about “saying the wrong thing” and “making it worse” because they often didn't know what students were dealing with on a personal level. One teacher offered insight into classroom behaviors:

These kids come from tough situations. ... Maybe it's so evident all the time, it's mundane and they just get numb to it. ... But a lot of this other stuff still could be surface behaviors, where it's still hidden. That stuff's still down below, it hasn't come out yet.

For teachers who had taught at other schools, differences in the student population at this school were notable. One teacher said that this was “the hardest place I've ever worked.” Teachers felt compelled to teach students social skills in an attempt to keep them from falling behind in their academics, and various strategies, such as mindfulness moments, were used to help students learn coping skills. One teacher said, “I'm trying to teach the kids it's ok to have emotions, identify your emotions. But it's not ok to stay in the emotion that you have, and just teaching them how to develop tools to do that.”

Missed Connections. Participants described several factors that contributed to missed opportunities to connect with students. A lack of training resonated as a concern with many of the participants as they shared their struggles with attempting to reach students on an emotional level. Teacher participants noted “it's hard to get to deeper layers” because students were guarded and “putting on a strong face.” Having a desire to build these relationships, but feeling unprepared to do so, contributed to teacher burnout. One teacher said:

We almost are serving as the mental health care provider and that's stressful for me because I'm definitely not qualified to. ... So, it is very taxing and it's exhausting and I can't ever, you know, let it go. I worry about these kids all the time, so they are starting to affect my own mental health.

Teachers discussed the increased demands of classroom management, often leading to turnover for those who “couldn’t handle it.” This turnover contributed to higher student-to-teacher ratios when positions were not immediately filled. Although the school had specific needs and unique challenges, the school was held to the same expectations as other middle schools across the state. An administrator described:

School performance grades across the state, that is strictly an academic measure. It has nothing to do with mental health, classroom behavior, student behavior. ... Then you’re compared to every middle school in the state, and it’s not even because every school has its own issues, but not every school has our issues.

Teachers noted that their one school counselor “has so many kids in and out of her office day after day.” Students who needed an adult to talk to were often found sitting on the bench outside of the school principal’s office waiting. One clinician acknowledged a lack of resources to attend to students’ needs:

We don’t necessarily have a person who can attend. I mean, nine times out of 10, there’s not someone there who can attend. We’re all busy, and sometimes those benches are full.

Administrators felt the school was “caught smack dab in the middle” between meeting the state’s educational standards and trying to “put some type of fix” to students’ overwhelming emotional needs. All the while, teachers desired more individual time with students because “then we could begin to resolve some of the issues we have in class.” According to one teacher:

We’re driven by the central office ... to help them perform academically [but] they need help emotionally. ... So, here we are pouring into these kids academically and we recognize that they have some behavior problems, but we aren’t given opportunities or time set aside to work with them.

Integrated Results

Figure 2 depicts the analytic integration of the qualitative-dominant mixed-methods project. While participants regularly used school connectedness strategies, classroom management

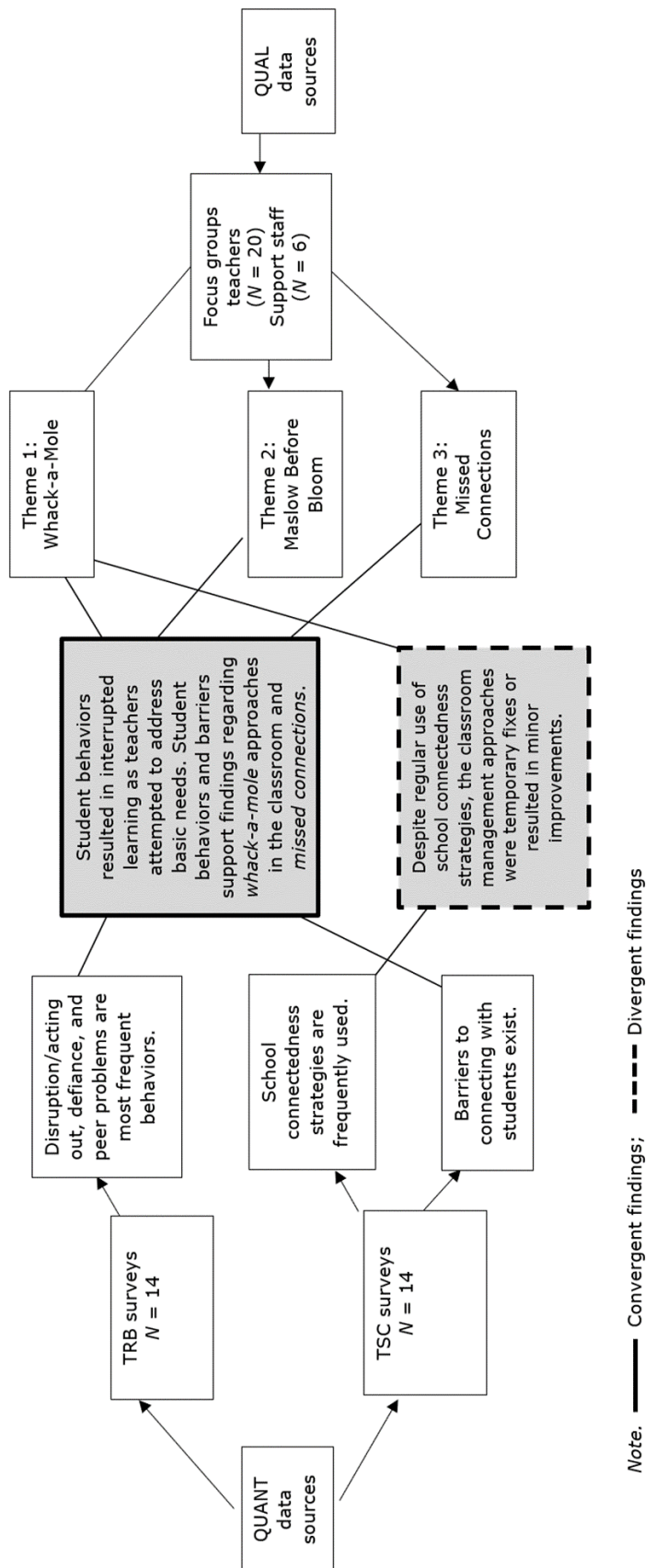
approaches were temporary fixes or resulted in minor improvements. This divergent finding reflects the impact of barriers on participants’ ability to build school connectedness. The TRB survey provides some context for this finding, as the frequent disruptive behaviors that participants reported may have made classroom management strategies more challenging or ineffective. These student behaviors often hindered learning and led participants to pause classroom activities to address basic needs. In addition to these student behaviors, reported barriers to school connectedness supported convergent findings regarding whack-a-mole approaches in the classroom. The focus group data provide further evidence that many of the participants did not feel competent to address students’ emotional health needs. While participants expressed an overall desire to connect with students, the increased demands of classroom management and a lack of training contributed to missed connections.

Discussion

Using Bronfenbrenner’s bioecological theory of human development as a guiding framework, we found that teachers and staff struggle to address the challenges of student behavior and lack of engagement. Teachers described a whack-a-mole approach to classroom management that had them moving frequently from addressing one disruptive behavior to the next. They were unable to find sufficient time for instruction given the volume of problem behaviors and the self- and district-imposed emphasis on improving student academic outcomes. As a result, participants indicated that there had been numerous missed opportunities to build positive relationships with students. The demands of improving student achievement combined with the need to regularly address problem behaviors meant that teachers simply could not use their limited instructional time to work on building those connections.

Teachers indicated that many of the problem behaviors they observed in their students may reflect underlying social and emotional issues. Doucet et al. (2020) popularized the phrase “Maslow before Bloom” to emphasize that securing children’s basic needs, including emotional and physical well-being, should precede attempts to teach and educate in the classroom. Despite teachers’ awareness of the importance of prioritizing children’s basic needs, challenges existed. Students’ severe social and emotional needs, the demands of accountability for improved

Figure 2. Mixed Insights From Integration of Data Sources



student achievement, and a seeming lack of resources have all complicated teachers' ability to address the underlying root causes of students' lack of engagement and behavioral difficulties.

Consistency among the adults in the building is needed to strengthen school connectedness. At the outset of the project, 22 teachers were employed at the school. Since then, three teachers have retired, and 10 have resigned for various reasons. Turnover rates are higher in schools with more students of color and low-income families and result in lower student performance (Carver-Thomas & Darling-Hammond, 2017). Similar to the results of other studies (Aloe et al., 2014; Corbin et al., 2019), participants reported being burned out due to students' high level of need. They also reported feeling tremendous pressure from the school district to improve student achievement and performance, which is often a factor in teacher turnover (Berry et al., 2021). High teacher turnover limits a school's ability to establish and maintain positive relationships with students, which has been shown to be a protective factor for children against emotional and behavioral problems (Lester & Cross, 2015). Such positive relationships are also a predictor of higher academic performance and student engagement (Roorda et al., 2017).

Over the past couple of years, the school has hired a restorative justice coordinator to promote restorative practices (Maynard & Weinstein, 2019), and teachers have completed training related to emotional poverty (Payne, 2018). Additional training in social-emotional learning is also recommended to foster relationship building, academic engagement, and school connectedness (Murano et al., 2019). School connectedness may also be impacted by understanding and appreciating students' diversity and culture, as this may promote an environment of support and safety, especially for youth of color (Voight et al., 2015). While school faculty are predominantly White, 78% of the student population is composed of youth of historically underrepresented backgrounds (National Center for Education Statistics, n.d.). Research indicates the existence of significantly better academic, socio-emotional, and behavioral adjustment among underrepresented students if there is a high level of teacher support for cultural pluralism (Brand et al., 2008). Given the stark racial contrast between the adults and the children within the school building, training in culturally responsive teaching strategies may help staff and instructors mitigate cultural barriers and strengthen relationships with their students

(Cruz et al., 2020). The findings suggest that consideration must be given to both microlevel influences and larger contextual factors when implementing school connectedness strategies within the school microsystem.

Limitations and Future Research

The findings represent a singular case study from one middle school; thus, results may not be transferable to other middle schools. Voices from the 400 middle school students were not captured in this study, which is another limitation. Committed to relationship building and sustainability, the community-academic partnership continues with Phase II of the project to examine student perceptions of school connectedness in this low-income rural school. Studies suggest there may be racial or ethnic differences in perceptions of connectedness and how underrepresented youth in middle school seek help when in distress (Voight et al., 2015). Further data collection will facilitate a better understanding of the perspectives of students of color and students of poverty regarding school connectedness strategies when those strategies are utilized by White, middle-class teachers. Phase II is being led by coauthor MP, who was previously the doctoral research assistant on this project and is currently participating in the EOSA. Similar to Phase I, both partners equitably contributed to all phases of the research project.

Implications and Recommendations

For schools with high needs, state and district leadership should consider increasing funding to facilitate smaller class sizes. Smaller class sizes create a more personalized and engaging learning experience, resulting in improved behavior and academic performance (Jackson et al., 2016; Mathis, 2017). Findings from this study suggest that equity should be considered when budgeting for school resources such as school nurses and counselors, as research indicates that basing clinicians' workloads solely on student ratios is inappropriate (Goodman-Scott et al., 2018; Jameson et al., 2018; National Association of School Nurses, 2020). It is also common for clinicians to provide services for multiple schools, presenting another barrier to building rapport with students and teachers. Implications of this study suggest that resource allocation based upon student ratios or number of buildings is outdated. Instead, thoughtful consideration in order to equitably meet the needs of individual school populations is recommended.

Additionally, implementation of staff training based on the student population's needs is most effective and sustainable if the staff that receive the training are retained over multiple academic years. Increasing staff retention may facilitate positive relationship development with students, thus improving school connectedness. Retention strategies with demonstrated success include increased compensation, such as signing and longevity bonuses for hard-to-staff schools; positive working conditions; and supportive school and district management practices (Podolsky et al., 2019). In summary, school systems can work to improve by addressing school equity in the following ways:

- Prioritizing allocation of clinicians toward equity needs of individual school populations
- Providing training to support culturally responsive teaching strategies and to promote school connectedness interventions tailored toward specific student populations
- Implementing policy, funding, and administrative practices focused on an infrastructure to provide essential resources, including recruitment of a more diverse body of teaching faculty

Conclusions

Findings from this study indicate that additional resources and staff training are needed for rural, low-income schools to support students who have mental health needs. While this study contributes to the literature related to school connectedness in low-income schools serving underrepresented youth, the COVID-19 pandemic has brought additional challenges related to mental health. Additionally, the school continues to face ongoing teacher resignation and a lack of resources to adequately address students' emotional and mental health needs. As such, our commitment to CBPR and reciprocity with the middle school persists as we continue to advocate for the health and well-being of youth in rural NC and similar communities.

References

- Aloe, A.M., Amo, L.C., & Shanahan, M.E. (2014). Classroom management self-efficacy and burnout: A multivariate meta-analysis. *Educational Psychology Review*, 26(1), 101–126. <https://doi.org/10.1007/s10648-013-9244-0>
- Berry, B., Bastian, K.C., Darling-Hammond, L., & Kini, T. (2021, January 4). *The importance of teaching and learning conditions: influences on teacher retention and school performance in North Carolina*. Learning Policy Institute. <https://learningpolicyinstitute.org/product/leandro-teaching-and-learning-conditions-brief>
- Blackstock, J., Chae, K.B., Mauk, G.W., & McDonald, A. (2018). Achieving access to Mental Health Care for School-Aged Children in Rural Communities: A Literature Review. *The Rural Educator*, 39(1), 12–25. <https://doi.org/10.35608/ruraled.v39i1.212>
- Bloom, B.S. (1956). *Taxonomy of educational objectives, handbook I: Cognitive domain*. David McKay Co. Inc.
- Blum, R.W., & Libbey, H.P. (2004). Executive summary. *The Journal of School Health*, 74(7), 231–232. <https://doi.org/10.1111/j.1746-1561.2004.tb08278.x>
- Bower, J.M., van Kraayenoord, C., & Carroll, A. (2015). Building social connectedness in schools: Australian teachers' perspectives. *International Journal of Educational Research*, 70, 101–109. <https://doi.org/10.1016/j.ijer.2015.02.004>
- Brand, S., Felner, R. D., Seitsinger, A., Burns, A., & Bolton, N. (2008). A large scale study of the assessment of the social environment of middle and secondary schools: The validity and utility of teachers' ratings of school climate, cultural pluralism, and safety problems for understanding school effects and school improvement. *Journal of School Psychology*, 46(5), 507–535. <https://doi.org/10.1016/j.jsp.2007.12.001>
- Bronfenbrenner, U. (Ed.). 2005. *Making human beings human: Biological perspectives on human development*. SAGE Publications.
- Carver-Thomas, D., & Darling-Hammond, L. (2017, August 16). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute. <https://learningpolicyinstitute.org/product/teacher-turnover-brief>
- Centers for Disease Control and Prevention. (2018, August 7). *Adolescent and school health: Protective factors*. U.S. Department of Health and Human Services. <https://www.cdc.gov/healthyyouth/protective/index.htm>
- Chappel, J., & Ratliffe, K. (2021). Factors impacting positive school-home communication: A multiple case study of family-school partnership practices in eight elementary schools in Hawai'i. *The School Community Journal*, 31(2), 9–30. <https://www.adi.org/journal/2021fw/ChappelRatliffeFW21.pdf>

- Chiang-Hanisko, L., Newman, D., Dyess, S., Piyakong, D., & Liehr, P. (2016). Guidance for using mixed methods design in nursing practice research. *Applied Nursing Research*, 31, 1–5. <https://doi.org/10.1016/j.apnr.2015.12.006>
- Corbin, C.M., Alamos, P., Lowenstein, A.E., Downer, J.T., & Brown, J.L. (2019). The role of teacher-student relationships in predicting teachers' personal accomplishment and emotional exhaustion. *Journal of School Psychology*, 77(1), 1–12. <https://doi.org/10.1016/j.jsp.2019.10.001>
- Cruz, R.A., Manchanda, S., Firestone, A.R., & Rodl, J.E. (2020). An examination of teachers' culturally responsive teaching self-efficacy. *Teacher Education and Special Education*, 43(3), 197–214. <https://doi.org/10.1177/0888406419875194>
- Dimitropoulos, G., Cullen, E., Cullen, O., Pawluk, C., McLuckie, A., Patten, S., Bulloch, A., Wilcox, G., & Arnold, P.D. (2021). "Teachers often see the red flags first": Perceptions of school staff regarding their roles in supporting students with mental health concerns. *School Mental Health*, 14, 402–415. <https://doi.org/10.1007/s12310-021-09475-1>
- Doody, O., Slevin, E., & Taggart, L. (2013a). Focus group interviews in nursing research: Part 1. *British Journal of Nursing*, 22(1), 16–19. <https://doi.org/10.12968/bjon.2013.22.1.16>
- Doody, O., Slevin, E., & Taggart, L. (2013b). Preparing for and conducting focus groups in nursing research: Part 2. *British Journal of Nursing*, 22(3), 170–173. <https://doi.org/10.12968/bjon.2013.22.3.170>
- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F.J. (2020, March 29). *Thinking about pedagogy in an unfolding pandemic: An independent report on approaches to distance learning during COVID19 school closures*. Education International. https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
- Fang, M. (2018). School poverty and the risk of attempted suicide among adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 53(9), 955–967. <https://doi.org/10.1007/s00127-018-1544-8>
- Ghandour, R.M., Sherman, L.J., Vladutiu, C.J., Ali, M.M., Lynch, S.E., Bitsko, R.H., & Blumberg, S.J. (2019). Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of Pediatrics*, 206, 256–267. <https://doi.org/10.1016/j.jpeds.2018.09.021>
- Goldman-Mellor, S., Allen, K., & Kaplan, M.S. (2018). Rural/urban disparities in adolescent nonfatal suicidal ideation and suicide attempt: A population-based study. *Suicide and Life-Threatening Behavior*, 48(6), 709–719. <https://doi.org/10.1111/sltb.12390>
- Goodman-Scott, E., Sink, C.A., Cholewa, B.E., & Burgess, M. (2018). An ecological view of school counselor ratios and student academic outcomes: A national investigation. *Journal of Counseling and Development*, 96(4), 388–398. <https://doi.org/10.1002/jcad.12221>
- Hawe, P., Bond, L., Ghali, L. M., Perry, R., Davison, C.M., Casey, D.M., Butler, H., Webster, C.M., & Scholz, B. (2015). Replication of a whole school ethos-changing intervention: Different context, similar effects, additional insights. *BMC Public Health*, 15(1), Article 265. <https://doi.org/10.1186/s12889-015-1538-3>
- Hickey, N., Harrison, L., & Sumsion, J. (2012). Using a socioecological framework to understand the career choices of single- and double-degree nursing students and double-degree graduates. *International Scholarly Research Notices*, 2012, Article 748238. <https://doi.org/10.5402/2012/748238>
- Hitchcock, J.H., & Onwuegbuzie, A.J. (2020). Developing mixed methods crossover analysis approaches. *Journal of Mixed Methods Research*, 14(1), 63–83. <https://doi.org/10.1177/1558689819841782>
- Hong, J.S., Espelage, D.L., & Kral, M.J. (2011). Understanding suicide among sexual minority youth in America: An ecological systems analysis. *Journal of Adolescence*, 34(5), 885–894. <https://doi.org/10.1016/j.adolescence.2011.01.002>
- Israel, B.A., Eng, E., Schulz, A.J., & Parker, E.A. (2013). Introduction to methods for CBPR for health. In B.A. Israel (Ed.), *Methods for community-based participatory research for health* (2nd ed., pp. 3–38). Jossey-Bass.
- Jackson, C.K., Johnson, R.C., & Persico, C. (2016). The effects of school spending on educational and economic outcomes: Evidence from school finance reforms. *The Quarterly Journal of Economics*, 131(1), 157–218. <https://doi.org/10.1093/qje/qjv036>
- Jameson, B.E., Engelke, M.K., Anderson, L.S., Endsley, P., & Maughan, E.D. (2018). Factors related to school nurse workload. *The Journal of School Nursing*, 34(3), 211–221. <https://doi.org/10.1177/1059840517718063>
- Joyce, H.D., & Early, T.J. (2014). The impact of school connectedness and teacher support on depressive symptoms in adolescents: A multilevel analysis. *Children and Youth Services Review*, 39, 101–107. <https://doi.org/10.1016/j.childyouth.2014.02.005>
- Kim, J., Walsh, E., Pike, K., & Thompson, E.A. (2020). Cyberbullying and victimization and youth suicide risk: The buffering effects of school connectedness. *The Journal of School Nursing*, 36(4), 251–257. <https://doi.org/10.1177/1059840518824395>

- Klinck, M., Vannucci, A., & Ohannessian, C.M. (2020). Bidirectional relationships between school connectedness and internalizing symptoms during early adolescence. *The Journal of Early Adolescence*, 40(9), 1336–1368. <https://doi.org/10.1177/0272431619858401>
- Lester, L., & Cross, D. (2015). The relationship between school climate and mental and emotional wellbeing over the transition from primary to secondary school. *Psychology of Well-Being*, 5(1), Article 9. <https://doi.org/10.1186/s13612-015-0037-8>
- Liu, Q., Xu, Y., Li, Y., Raat, H., & Jiang, M. (2021). Bidirectional associations between school connectedness and mental health problems in early adolescence: A cross-lagged model. *School Mental Health*, 13, 730–742. <https://doi.org/10.1007/s12310-021-09440-y>
- Loukas, A., Cance, J.D., & Batanova, M. (2016). Trajectories of school connectedness across the middle school years: Examining the roles of adolescents' internalizing and externalizing problems. *Youth & Society*, 48(4), 557–576. <https://doi.org/10.1177/0044118X13504419>
- Mann, M.J., Smith, M.L., & Kristjansson, A.L. (2015). Improving academic self-efficacy, school connectedness, and identity in struggling middle school girls: A preliminary study of the “REAL girls” program. *Health Education & Behavior*, 42(1), 117–126. <https://doi.org/10.1177/1090198114543005>
- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>
- Mathis, W.J. (2017). The effectiveness of class size reduction. *Psychosociological Issues in Human Resource Management*, 5(1), 176–183. <https://doi.org/10.22381/PIHRM5120176>
- Maynard, N., & Weinstein, B. (2019). *Hacking school discipline: 9 Ways to create a culture of empathy & responsibility using restorative justice*. Times 10 Publications.
- Murano, D., Way, J.D., Martin, J.E., Walton, K.E., Anguiano-Carrasco, C., & Burrus, J. (2019). The need for high-quality pre-service and inservice teacher training in social and emotional learning. *Journal of Research in Innovative Teaching & Learning*, 12(2), 111–113. <https://doi.org/10.1108/JRIT-02-2019-0028>
- Nadeem, E., Kataoka, S.H., Chang, V.Y., Vona, P., Wong, M., & Stein, B.D. (2011). The role of teachers in school-based suicide prevention: A qualitative study of school staff perspectives. *School Mental Health*, 3(4), 209–221. <https://doi.org/10.1007/s12310-011-9056-7>
- National Association of School Nurses. (2020). *School nurse workload: Staffing for safe care*. <https://www.nasn.org/nasn/advocacy/professional-practice-documents/position-statements/ps-workload>
- National Center for Education Statistics. (n.d.). *Common core of data: America's public schools*. U.S. Department of Education. <https://nces.ed.gov/ccd>
- North Carolina Department of Public Instruction. (n.d.). *North Carolina school report cards*. <https://ncreports.ondemand.sas.com/src>
- Nowell, L.S., Norris, J.M., White, D.E., & Moules, N.J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13. <https://doi.org/10.1177/1609406917733847>
- Nyberg, A., Rajaleid, K., Westerlund, H., & Hammarström, A. (2019). Does social and professional establishment at age 30 mediate the association between school connectedness and family climate at age 16 and mental health symptoms at age 43? *Journal of Affective Disorders*, 246, 52–61. <https://doi.org/10.1016/j.jad.2018.12.027>
- Oldfield, J., Humphrey, N., & Hebron, J. (2016). The role of parental and peer attachment relationships and school connectedness in predicting adolescent mental health outcomes. *Child and Adolescent Mental Health*, 21(1), 21–29. <https://doi.org/10.1111/camh.12108>
- Payne, R.K. (2018). *Emotional poverty in all demographics: How to reduce anger, anxiety, and violence in the classroom*. Aha! Process, Inc.
- Podolsky, A., Kini, T., Darling-Hammond, L., & Bishop, J. (2019). Strategies for attracting and retaining educators: What does the evidence say? *Education Policy Analysis Archives*, 27, Article 38. <https://doi.org/10.14507/epaa.27.3722>
- Poth, C.N. (2018). *Innovation in mixed methods research: A practical guide to integrative thinking with complexity*. SAGE Publications.
- Roorda, D.L., Jak, S., Zee, M., Oort, F.J., & Koomen, H.M.Y. (2017). Affective teacher–student relationships and students' engagement and achievement: A meta-analytic update and test of the mediating role of engagement. *School Psychology Review*, 46(3), 239–261. <https://doi.org/10.17105/SPR-2017-0035.V46-3>
- Rural Health Information Hub. (2022). *Rural data explorer*. <https://www.ruralhealthinfo.org/data-explorer>
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications.

Stempel, H., Cox-Martin, M.G., O'Leary, S., Stein, R., & Allison, M.A. (2019). Students seeking mental health services at school-based health centers: Characteristics and utilization patterns. *The Journal of School Health*, 89(10), 839–846. <https://doi.org/10.1111/josh.12823>

VanValkenburgh, J., Putnam, J., & Porter, M. (2021). Middle school parent involvement: Perceptions of teachers and parents. *Middle School Journal*, 52(4), 33–42. <https://doi.org/10.1080/00940771.2021.1948299>

Vidourek, R.A., & King, K.A. (2014). Enhancing school connectedness: Teachers' perceived confidence in positively connecting students to school. *International Journal of School & Educational Psychology*, 2(2), 85–94. <https://doi.org/10.1080/21683603.2013.876949>

Voight, A., Hanson, T., O'Malley, M., & Adekanye, L. (2015). The racial school climate gap: Within-school disparities in students' experiences of safety, support, and connectedness. *American Journal of Community Psychology*, 56(3–4), 252–267. <https://doi.org/10.1007/s10464-015-9751-x>

Wang, M.-T. & Degol, J.L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology*, 28(2), 315–352. <https://doi.org/10.1007/s10648-015-9319-1>

About the Authors

All of the authors are affiliated with the College of Nursing at East Carolina University. Deborah E. Tyndall is a professor, Mitzi C. Pestaner is an assistant professor, Shannon B. Powell is an associate professor, Travis E. Lewis is an assistant professor, and Carlos R. Melendez is an assistant professor.