

ORIGINAL ARTICLE

School connectedness: Comparison between adolescent students with emotional and behavioural disorders and general education students

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(Received 17 May 2022; revised 24 January 2023; accepted 30 January 2023; first published online 28 February 2023)

Abstract

Adolescents with emotional and behavioural disorders (EBD) continue to struggle in the school environment. They may have difficulty connecting to their school environment as their engagement in challenging behaviour may have led to frequent school removal and high rates of school dropout, resulting in a breakdown of their school connectedness. The purpose of this study was to evaluate levels of school connectedness for adolescents with EBD attending self-contained classrooms and compare them to adolescents in general education. The School Connectedness Questionnaire (SCQ), measuring school bonding, school attachment, school engagement, and school climate, was administered to 50 students with EBD and to 50 general education students ($n = 100$). A multivariate analysis of variance (MANOVA) was conducted. The results indicated that of the four domains of school connectedness, students with EBD reported significantly higher levels of school climate. These youth also reported significant differences on four specific items representing three of the four construct domains. The results indicate that adolescents with EBD may experience school differently. Researchers should continue to examine specially designed programs for students with EBD that emphasise explicit behavioural and academic expectations and social and emotional skill development and its impact on school connectedness for adolescents with EBD.

Keywords: School connectedness; emotional behaviour disorder; school climate; school bonding; school engagement

Adolescence is a period of great physiological change that may contribute to social and emotional challenges (Merikangas et al., 2010). As a result, youth who experience emotional and behavioural difficulties may develop issues related to their health and wellbeing (Cumming et al., 2018; U.S. Department of Health and Human Services [HSS], 2018). Adolescents with emotional and behavioural difficulties report engaging in health-risk behaviours such as fighting on (8.5%) or off (23.6%) school property, carrying weapons on school property (3.8%), and considering (17.2%), planning (13.6%) or even attempting (7.4%) suicide, with little change in the percentages over the last three years (HSS, 2018). They also report being bullied at school (19%), as well as refraining from attending school due to safety concerns (6.7%; HSS, 2018). While these numbers are concerning, they may be even more concerning regarding adolescents with emotional and behavioural disorders (EBD) as they are disproportionately represented in the nation's school discipline reports (e.g., out-of-school suspension, expulsion) due to engaging in health-risk behaviours, and they lead all disability categories in rates of dropping out of school by a large margin (U.S. Department of Education, 2021).

A youth with EBD is defined as a student identified and receiving special education services due to frequent engagement in externalised behaviours (e.g., verbal or physical aggression, persistent

argumentative behaviour or temper tantrums, inattention, and disorganisation) and/or internalised behaviours (anxiety-related issues, mood disorders, social withdrawal) within the context of school; however, these issues may extend beyond the boundaries of school (Kauffman & Landrum, 2013). This definition does not align with the traditional emotional disturbance (ED) definition in the Individuals with Disabilities Education Act (IDEA); however, behaviour disorders were added to address the subjectivity of the IDEA definition (Forness & Knitzer, 1992; Kauffman & Landrum, 2013). Students with EBD can experience mild, moderate, and severe emotional or behavioural challenges. Teachers often view students with EBD as behaviourally difficult and may have more negative interactions with them, impacting the development of positive student-teacher relationships (Zolkoski, 2019). Also, adolescents with EBD may struggle to develop meaningful relationships with their peers as they may provoke or irritate them, leading to social isolation (Garwood et al., 2020; Kauffman & Landrum, 2013). This is particularly problematic given that students who are socially isolated are at an increased risk of developing depression, dropping out of school, and developing suicidal ideation due to a lack of positive social interactions, which are imperative to their social and emotional development (Garwood et al., 2020).

The challenging behaviours exhibited by adolescents with EBD may also result in frequent removal from classrooms and schools (U.S. Department of Education, 2021). However, exclusionary disciplinary responses traditionally employed by schools exacerbate the situation (Gage et al., 2016; Kern, 2015). Suspension and expulsion not only remove the academic and behavioural supports students with EBD receive in school, they may also have a negative effect on the relationship between students with EBD and their teachers and administrators (Gage et al., 2016). This can further isolate this population of students, who characteristically struggle to integrate in the school environment, resulting in a breakdown in their connectedness to their school (Garwood & Moore, 2020). Blum (2005) argued that students who are not connected to their school environments are more prone to health-risk behaviours, such as substance abuse, violent or deviant behaviour, social isolation, depression, and suicide. Students with EBD may be at an increased risk because they may already struggle with issues such as anxiety or posttraumatic stress disorder, which may further isolate them in the school environment (Kauffman & Landrum, 2013; Kern, 2015). Christle et al. (2005) recommended that, in order to address these issues for students with EBD, school connectedness should be examined to provide information on outcomes through initiatives aimed at raising academic achievement and reducing suspension and dropout rates. Research surrounding school connectedness suggests that fostering a student's sense of connectedness to school can help to achieve these aims (Cumming et al., 2018; Garwood & Moore, 2020).

School Connectedness and Students with Emotional and Behavioural Disorders

School connectedness is defined as the student's beliefs that both teachers and administrators on their school campus care about their learning and more specifically about their overall wellbeing (Blum, 2005). Researchers identified school connectedness as an important factor in reducing the likelihood that students will engage in behaviours that may compromise their health (Blum, 2005; McNeely et al., 2002). For students with EBD, school connectedness involves relationships that they develop with their teachers and their peers, as well as their inclusion in school activities, their adjustment to school policies and procedures, and their perceived level of safety at school (Cumming et al., 2018; de Swart et al., 2022; van Loan & Garwood, 2020; Zolkoski, 2019).

Quality connections with teachers and classmates create a sense of belonging to a school (Garwood & Moore, 2020; Loukas et al., 2006). Students who have this connection to a school are more likely to adjust to the school social environment and display less challenging behaviour in the classroom and on school campuses (de Swart et al., 2022; Garwood & Moore, 2020; Loukas et al., 2006). Students with EBD may have difficulty connecting with their peers and adults, which can lead to social isolation, alienation, and the development of mental health issues (Centers for Disease Control and Prevention [CDC], 2009; Garwood & Moore, 2020). Students with EBD have more disciplinary reports,

spend significantly more time out of class due to discipline, and miss more days of school (Zolkowski, 2019). While there is evidence that quality connections with teachers supports students with EBD success in the school environment, these constructs remain understudied (de Swart et al., 2022).

School connectedness can be viewed as a comprehensive construct made up of four components: (a) school bonding, (b) school attachment, (c) school engagement, and (d) school climate (Cumming et al., 2018; Marsh & Randolph, 2020). Each of these domains plays a crucial role in contributing to student's with EBDs overall development of school connectedness.

School bonding

For students with EBD, school bonding includes development of positive teacher-student relationships as well as positive peer relationships (Garwood & Moore, 2020; Mathur et al., 2018). For these youth, the development of higher levels of school bonding can lead to the development of school attachment as well as school engagement (Marsh et al., 2017; Zolkowski, 2019). Several factors influence the development of school bonding, including the level of adult support a student receives, positive peer relationships, and a commitment to education (Marsh, 2018).

School attachment

School attachment for students with EBD includes involvement in school (e.g., motivation to participate in school-related activities), as well as investment in overall school success (Garwood & Moore, 2020; Mathur et al., 2018). For these youth, the development of school attachment can also support development of school bonding (Cumming et al., 2018; Marsh et al., 2017). School attachment levels are influenced by the level of adult support students with EBD receive, positive peer relationships, and environmental factors, such as the availability of extracurricular activities and the degree of opportunity to engage in them (Marsh, 2018).

School engagement

Student engagement is defined as 'the degree to which students participate in all aspects of the school environment (academic and social) and assume the appropriate level of responsibility for their own learning and behaviour' (PBIS.org, n.d., p. 1). For students with EBD, engagement refers to the level of adjustment to the school community (Cumming et al., 2018; Garwood & Moore, 2020; Marsh, 2018). School engagement for students with EBD includes attending school, completing classwork and homework, and following school rules. For these youth, high levels of school engagement, along with school bonding and school attachment, are strong predictors for academic and behavioural success (Cumming et al., 2018; Garwood & Moore, 2020; Marsh, 2018).

School climate

School climate is defined as the quality of school life and the experiences, norms, goals, and values shared by teachers, administrators, and students and their families (Gage et al., 2016). Gage et al. (2016) suggested that schools address school climate by creating positive school environments through reinforcing positive behaviour, working with parents to build a culture that stresses the importance of education, and providing behavioural and academic supports to students who are at risk for or exhibiting problem behaviours. Reinforcing positive behaviour in conjunction with working with parents is pivotal to the success of students with EBD as they may experience gaps in their social and emotional development that can affect their ability to effectively navigate the school environment (Chapman et al., 2013; Durlak et al., 2011; Marsh, 2018). These gaps in social and emotional skills may impact their development of prosocial behaviours as well as school-related behaviours, which increases their risk of becoming disconnected from the school environment and engaging in behaviours that increase their chances of being removed from school (Chapman et al., 2013; Toshalis, 2015).

As schools and educators seek to understand factors contributing to the poor outcomes of students with EBD, school connectedness (i.e., school bonding, school attachment, school engagement, school climate) should be at the forefront of the conversation, given its relationship to the social, behavioural, academic, and psychological outcomes of adolescents (Cumming et al., 2018; Garwood & Moore, 2020). The purpose of the present study was to investigate levels of school connectedness among adolescents with EBD, in relation to their general education peers. The following research question was addressed: What, if any, are the differences *in school connectedness between adolescent students with EBD and general education students?*

Method

This study was a part of a larger study designed to measure school connectedness of students with EBD in multiple environments. The scope of the larger study was to validate a new measure of school connectedness that included students with disabilities and general education students. To recruit participants, school administrators who had programs for students with EBD on their campuses were contacted regarding participation in this study. These schools were solicited and students with EBD and general education students were recruited for participation via their classroom teachers. General education schools with demographic characteristics (e.g., race/ethnicity, age) that matched those of the EBD programs, were invited to participate.

Participants

A total of 100 adolescents agreed to participate in this study: 50 students with EBD and 50 general education students currently enrolled in 21 schools (7 elementary schools, 7 middle schools, and 7 high schools). Students' ages ranged from 10 to 19 years. For the purposes of this study, the age range for adolescence was selected according to the definition of adolescence outlined by the World Health Organization (WHO, 2019).

Students with EBD were operationalised as those serviced in self-contained special education environments that focused on development of prosocial behaviours, social and emotional skills, and academic skills. Additionally, 18 of the students with EBD attended specialised campuses due to their engagement in more severe violent behaviour.

The general education students were defined as those who received regular instruction in the general education environment. The general education environment is where most students receive direct instruction in core academic curricula. The students in elementary general education received direct instruction in a single classroom while middle school and high school general education students attended content specific classrooms. See [Table 1](#) for student demographic information.

Setting

Administrators from 21 schools — 19 comprehensive and 2 specialised campuses — that included programs for students with EBD agreed to participate in this study. Of the 21 schools, 14 received Title 1 funding for servicing high percentages of students from low-income families (Elementary and Secondary Education Act, 2015). Students with EBD attended classes in self-contained special education programs. These programs are structured programs in a single classroom with smaller class sizes (i.e., four to eight students) designed to emphasise social and emotional skills as well as improve student behaviour via behaviour management systems. Specialised campus programs further emphasise this program design while also partnering with local community agencies (e.g., mental health services, juvenile justice) to provide a continuum of services to address mental health and behavioural needs. These specialised campuses consist of only students who have disabilities with no access to their general education peers.

Table 1. Student Demographic Information

| Characteristics | Number of participants | |
|---|------------------------|----------------------------|
| | Students with EBD | General Education Students |
| Education status | 50 | 50 |
| Gender | | |
| Male | 41 | 21 |
| Female | 8 | 29 |
| Race | | |
| American Indian or Alaska Native | 1 | 0 |
| Asian | 0 | 2 |
| Black or African American | 21 | 6 |
| Hispanic or Latino | 9 | 36 |
| Native Hawaiian or Other Pacific Islander | 0 | 1 |
| White | 19 | 5 |
| School level | | |
| Elementary (5th grade) | 17 | 0 |
| Middle | 19 | 36 |
| High | 14 | 14 |
| School campus | | |
| Comprehensive | 38 | 50 |
| Specialised | 12 | 0 |
| Age | | |
| 10–12 | 27 | 35 |
| 13–15 | 11 | 3 |
| 16–19 | 12 | 12 |

Note: EBD, emotional and behavioural disorders.

General education students who attended general classes self-reported that they were not receiving special education services and their regular classroom teachers confirmed their self-report results in the demographics section only. Students who attended middle and high school general education classes attended multiple classes in core content areas with different teachers who are specific content area specialists. Elementary level students attended a single classroom for all their content area instruction with the same teacher. General education students were not receiving instruction in social and emotional skill development or social skills. While general education teachers may have been using class-wide behaviour management systems, no systems were tailored to individual students. The average class size for elementary general education classes was 33 students and the average class size for middle school and high school classes was 36 students.

Measure

The 24-item School Connectedness Questionnaire (SCQ; Marsh & Randolph, 2020) was used to measure adolescent levels of school connectedness. The SCQ is appropriate for use with children and youth

in the age range from 8 to 18 years to assess school bonding (6 items), school attachment (6 items), school engagement (6 items), and school climate (6 items) for general education students and students with EBD. Each item is presented as a statement, and participants respond using a Likert scale, where 1 = *Not true*, 2 = *Somewhat true*, and 3 = *True*. Scores for each of the construct areas are averaged to indicate the self-reported level of each domain. Higher scores reflect higher levels of school bonding, attachment, engagement, and climate. Internal consistency reliability for each domain were: school bonding ($\alpha = .75$), school attachment ($\alpha = .75$), school engagement ($\alpha = .64$), and school climate ($\alpha = .74$; Marsh et al., 2019; Marsh & Randolph, 2020).

Procedures

A large U.S. Southwestern school district was contacted, and 21 schools agreed to participate in the study. Following the agreement, documents were submitted to both the research university institutional review board (IRB) as well as the school district IRB, and ethics approval was obtained. Of the 21 schools, 3 also agreed to assess their general education population. Eighteen teachers of programs for students with EBD and three general education teachers participated.

To recruit participants, a student recruitment script was read out loud by each participating teacher in their respective classrooms and parent consent and student assent forms were sent home with each student to be completed by their parent and for the parent to discuss possible participation in this study with their child and for the child or youth to sign. To account for parents who were native Spanish speakers and students who are English language learners, parent consent and student assent forms were translated into Spanish. Spanish parent consent and student assent forms were sent to, analysed and verified by a professional in the field of English learners (EL). Participating teachers completed their own consent forms to confirm their participation in the study.

Parent consent and assent forms were returned to teachers prior to the administration of the questionnaire. Students were included if they: (a) were receiving special education services under the category of emotional disturbance, (b) were a general education student receiving no special education services, (c) were between the ages of 10 and 19, and (d) returned their signed consent and assent forms.

Prior to questionnaire administration, teachers were required to attend brief implementation training. This training consisted of a review of the study timeline, distribution of materials for administration and collection, confidentiality of data discussion, procedures for administering the questionnaire, and procedures for nonparticipating students. Nonparticipating students continued with their regular classroom activities that included students with EBD engaging in activities with their classroom-teaching assistant in the self-contained classroom and general education students working independently. All participants were able to opt out at any time by telling their teacher they no longer wished to complete the survey or simply refraining from completing it.

The questionnaire was administered in a paper and pencil format. During administration of the questionnaire, teachers read the provided script and all questionnaire items out loud and allowed the students 30 seconds to respond to each item. The entire questionnaire administration process took approximately 15 minutes. Once administration was complete, the teachers collected all questionnaires, placed them in provided folders, sealed them, and locked them in the school's special education office for collection.

Students with EBD completed their questionnaires during their regularly scheduled times in the self-contained classroom. Elementary general education students (5th grade) completed their questionnaires with their regular classroom teacher. To limit possible overlap for general education students in middle and high schools, all questionnaire sessions occurred during their 3rd period classes.

Data Analysis

All questionnaires were collected and entered in the Statistical Package for the Social Sciences (SPSS) for analysis. A master's level graduate assistant conducted a data entry reliability check by randomly

Table 2. Descriptive Output of Student Reported Levels of School Connectedness

| Characteristic | <i>n</i> | <i>M</i> | <i>SD</i> |
|----------------------------|----------|----------|-----------|
| School bonding | | | |
| Students with EBD | 50 | 14.94 | 2.45 |
| General Education students | 50 | 15.44 | 1.70 |
| School attachment | | | |
| Students with EBD | 50 | 13.78 | 2.10 |
| General Education students | 50 | 13.92 | 2.07 |
| School engagement | | | |
| Students with EBD | 50 | 15.36 | 2.46 |
| General Education students | 50 | 14.86 | 1.80 |
| School climate | | | |
| Students with EBD | 50 | 15.26 | 2.64 |
| General Education students | 50 | 14.14 | 2.32 |

Note: Scores range from 6 to 18. Scores between 6 and 9 indicate a low level, scores ranging from 10 to 13 indicate a moderate level and scores ranging from 14 to 18 indicate a high level of each construct domain. EBD, emotional and behavioural disorders.

selecting 33% of the student data and verifying the entered data in SPSS. Reliability was calculated using the following formula ($[\text{items agreed}/\text{total items}] \times 100 = \text{percent of reliability}$). The data entry reliability score was 100%.

Once all item responses were entered, descriptive tests were conducted, and a multivariate analysis of variance (MANOVA) and a series of follow-up analyses of variance (ANOVA) were conducted on the construct domain results as well as the individual item scores to determine whether there would be mean differences between the general education students and students with EBD. A power analysis was conducted and the MANOVA was selected because the test is sensitive enough to determine medium group differences with groups with 50 participants and would limit the probability of making a type 1 error (Field, 2013).

Results

To determine whether differences in school connectedness, according to the questionnaire, exist between students with EBD and general education students, an initial descriptive analysis was conducted on overall domain scores. The descriptive analysis revealed that students with EBD reported lower levels of school bonding and school attachment than did their general education peers (see Table 2).

A MANOVA was conducted to test the mean reported differences of school connectedness for students in general education and students with EBD. A statistically significant effect was obtained, Pillai's trace = .548, $F(1, 98) = 3.59$, $p < .001$, indicating that there are significant differences in school connectedness between the two groups. A series of ANOVAs were conducted on the 28 dependent variables (24 items and 4 construct domain total scores) as a follow-up test to the MANOVA to determine where the significant differences between groups occurred (see Table 3).

Of the 28 dependent variables analysed, four items and one assessment domain were statistically significant. Students with EBD rated the items 'I have more than one friend at school',

Table 3. ANOVA Results for Assessment Domain Scores and Individual Assessment Item Scores from School Connectedness Questionnaire

| Item | SS | df | M^2 | F | p | R^2 |
|---|-------|----|-------|-------|--------|-------|
| People are happy when I come to school | .36 | 1 | .36 | 1.02 | .316 | .01 |
| I have a friend at school | .16 | 1 | .16 | 1.22 | .272 | .01 |
| I have more than one friend at school | 3.24 | 1 | 3.24 | 10.58 | .002* | .10 |
| My friends are happy when I'm at school | 1.00 | 1 | 1.00 | 3.55 | .063 | .04 |
| I am happy at school | .04 | 1 | .04 | .086 | .770 | .00 |
| People at school listen to me | .01 | 1 | .01 | .028 | .868 | .00 |
| School Bonding total | 6.25 | 1 | 6.25 | 1.40 | .239 | .01 |
| I like my teachers | .49 | 1 | .49 | 1.87 | .175 | .02 |
| My teachers like me | .09 | 1 | .09 | .253 | .616 | .00 |
| My teacher helps me | .36 | 1 | .36 | 1.62 | .206 | .02 |
| My friends help me | .16 | 1 | .16 | .404 | .527 | .00 |
| I go to school events with my friends (sports, dances) | .01 | 1 | .01 | .013 | .909 | .00 |
| I stay after school to take part in school events (clubs, extra helps, student council, sports) | 4.00 | 1 | 4.00 | 6.76 | .011* | .07 |
| School Attachment total | .49 | 1 | .49 | .113 | .738 | .00 |
| I feel safe at school | 5.76 | 1 | 5.76 | 21.22 | .001** | .18 |
| My classroom is a safe place | .36 | 1 | .36 | 1.086 | .300 | .01 |
| If I have a problem, my teacher helps me | .09 | 1 | .09 | .244 | .622 | .00 |
| If I do something wrong, people help me | .16 | 1 | .16 | .387 | .535 | .00 |
| At school, we are all treated the same | 4.41 | 1 | 4.41 | 7.60 | .007* | .07 |
| When I get in trouble I know what I did wrong | 1.00 | 1 | 1.00 | 2.94 | .090 | .03 |
| School Climate total | 31.36 | 1 | 31.36 | 5.07 | .027* | .05 |
| School is important | .04 | 1 | .04 | .225 | .636 | .00 |
| I do my classwork | .09 | 1 | .09 | .379 | .540 | .00 |
| I do my homework | .04 | 1 | .04 | .081 | .777 | .00 |
| I share my ideas in class | 1.69 | 1 | 1.69 | 3.39 | .069 | .03 |
| I listen to other ideas | .00 | 1 | .01 | .001 | 1.000 | .00 |
| I come to school everyday | .25 | 1 | .25 | .759 | .386 | .01 |
| School Engagement total | 6.25 | 1 | 6.25 | 1.35 | .249 | .01 |

Note: ANOVA, analyses of variance.

* $p < .05$; ** $p < .001$.

$F(1,98) = 10.58$, $p = .002$, and 'I stay after school to take part in school events (clubs, extra help, student council, sports)', $F(1, 98) = 6.76$, $p = .011$, significantly lower than their general education peers. Students with EBD rated the items 'I feel safe at school', $F(1, 98) = 21.22$, $p > .001$, and 'At school, we are all treated the same', $F(1, 98) = 7.60$, $p = .007$, significantly higher than their general education peers. Overall, students with EBD reported having significantly higher levels of school climate, $F(1, 98) = 5.07$, $p = .027$, than their general education peers.

Discussion

The purpose of this study was to analyse levels of school connectedness of adolescent students with EBD compared to adolescent students in general education. School connectedness is a particularly important concept to evaluate, as low levels of school connectedness are strong predictors for engagement in health-risk behaviour in adolescents (Blum, 2005; Cumming et al., 2018). This issue is particularly relevant concerning adolescents with EBD as they are at an increased risk for becoming disconnected from the school environment (Kern, 2015; U.S. Department of Education, 2021). According to the MANOVA results, being a general education student or student with EBD can have a significant impact on school connectedness. However, according to the results, these differences only appear to occur for the 'I have more than one friend at school', 'I stay after school to take part in school events (clubs, extra help, student council, sports)', 'I feel safe at school', 'At school, we are all treated the same' item scores and the school climate construct scores. This suggests that general education students and students with EBD differ in terms of school connectedness regarding these four assessment items as well as in terms of their school climate experience.

School Climate

The results of the reported levels of school climate offer an interesting view of the school experience for adolescents with EBD. While research indicates that adolescents with EBD frequently engage in challenging behaviour on school campuses, are disproportionately removed from school campuses due to these challenging behaviours, and drop out of school at a higher rate than their general education peers, their reported school climate levels indicate that while these problems exist, there is still a safe place for them on their school campus (U.S. Department of Education, 2021). This may reflect the nature of the self-contained programs the students with EBD were attending as these programs are designed to provide them with areas to practise coping, social, and academic skills with a teacher who is trained to assist them in all these skill areas. This outcome aligns with the results of Jones and Hensley (2012) who discovered that students with disabilities attending self-contained classrooms found their peers to be more supportive than those in other environments and were more willing to ask their teachers for help, which may indicate their perceived level of safety in the self-contained classroom environment. While the findings from Jones and Hensley support the results of the current study, their participating students did not have an EBD per se. Due to the limited research exploring the area of school climate as it pertains to students with EBD, future researchers should continue to examine the impact of self-contained programs on students with EBDs' perceived level of safety and support.

Item Analysis

The results of the individual item analysis revealed that four item responses had statistically significant differences. The first item, 'I have more than one friend at school', indicated that adolescents with EBD reported this item lower than those in the general education setting. This item was a part of the school bonding domain, and while adolescents with EBD did not differ significantly for the entire school bonding domain, this item result highlights that students with EBD may be able to create relationships on campus. Also, the lack of significant difference in overall school bonding aligns with current research regarding the importance teachers of students with EBD in self-contained and alternative school settings place on developing relationships with their students (Garwood & Moore, 2020).

The second item, 'I stay after school to take part in school events (clubs, extra help, student council, sports)', indicated that adolescents with EBD reported lower scores than their general education peers. This item was a part of the school attachment domain, and while adolescents with EBD did not differ among the entire school attachment domain, this item stood out as particularly low. This result may indicate that students with EBD are less likely to participate in school sponsored events, possibly due to their engagement in challenging behaviour, the school's expectations for participation in after-school events, clubs and activities, or transportation issues (Marsh, 2018).

The third, 'I feel safe at school', and fourth, 'At school we are all treated the same', item results indicated that adolescents with EBD reported higher scores than their peers in general education. Both items were a part of the school climate domain. These results may be related to the self-contained nature of the programs and aligns with the outcome of the school climate domain. Specifically, the context of the self-contained environment may contribute to students with EBD feeling safe and supported as well as feeling treated equally (Kauffman & Landrum, 2013; Kern, 2015; Morgan, 2010).

Limitations and Directions for Future Research

While the results of this study offer an interesting insight into the levels of school connectedness for students with EBD, there are limitations. The sample size was limited, and although a large sample of students with EBD was solicited, only 29% participated, and 62% of the sample were in the early stages of adolescence. This limits the generalisability of the results as they may be inflated, as research indicates that younger students report higher levels of school connectedness and are more willing to participate in school activities that are supported by teachers with whom they have developed positive relationships (Cumming et al., 2018; Kern, 2015; Klem & Connell, 2004; Marsh, 2018). Also, while attempts were made to ensure a balanced sample through solicitation and recruitment, the final sample was not balanced in terms of demographic characteristics as the students with EBD sample included more Black male students and the general education student sample included more Latino students. Other limitations included a lack of 5th-grade general education students consenting to participate, and all participants represented one school district, which further limits the generalisability of the results.

The results of this study indicate that self-contained environments for students with EBD may contribute to their reported benefits (i.e., teacher relationships, safety). However, further research is warranted. It is important that researchers better understand how the structure, support, and positive behaviour supports found in self-contained programs contribute to students with EBDs' levels of school connectedness. Further, researchers should examine the scope of positive behaviour interventions being implemented in self-contained programs for students with EBD to examine which interventions contribute most to their school connectedness.

Conclusion and Practical Implications

Prior to this study, there was limited exploration of the levels of school connectedness among adolescents with disabilities, particularly those with EBD (Garwood & Moore, 2020). Results of this study indicate that although students with EBD reported differing results among the domains of school connectedness, their only significant difference appeared to be in the school climate domain. This is particularly interesting as adolescents with EBD reported higher levels of school climate, feeling safer at school, and being treated the same among their peers. It appears that specially designed programs for students with EBD that emphasise explicit behavioural and academic expectations, and social and emotional skill development may help create positive teacher-student relationships and contribute to the improvement of school connectedness for adolescents with EBD.

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Cite this article: Marsh RJ (2023). School connectedness: Comparison between adolescent students with emotional and behavioural disorders and general education students. *Journal of Psychologists and Counsellors in Schools* **33**, 233–244. <https://doi.org/10.1017/jgc.2023.3>