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ARTICLE

The association between problematic school behaviours and social and emotional development in children seeking mental health treatment

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ABSTRACT

Problematic and disruptive behaviours continue to be a pervasive problem in elementary school classrooms across the globe, with recent reports indicating rising trends. The present study seeks to describe a unique sample of children who are seeking mental health services and present with specific problematic school behaviours. Preliminary analyses were conducted to provide a descriptive understanding of the demographic characteristics of the sample of children. Comparative analyses were conducted to investigate the social and emotional functioning of children who engage in minimal problematic school behaviours and children who engage in more severe and frequent problematic school behaviours. Findings indicate significant between-group differences for conduct problems, hyperactivity-inattention, and peer relationship problems. Implications and possible suggestions are discussed regarding how key stakeholders can make use of these findings within their school contexts.

KEYWORDS

Problematic school behaviours; social and emotional development; children mental health; multiple risk model

Introduction

Problematic school behaviours are a pervasive issue in elementary school classrooms globally. Media reports from various British news outlets (e.g. *The Guardian* and *The Telegraph*) detail critical stories of disruptive school behaviour problems that have become more frequent and severe in United Kingdom classrooms over recent years. Corroborating these media stories, educational reports that examine teacher experiences document similar findings. For example, in a study conducted by the Office for Standards in Education (Ofsted) (2014), approximately half of the 723 teachers in Britain polled reported that disruptive behaviours such as calling out and disturbing other peers during instructional time were commonplace within the primary school setting. The United States and Canada are also seeing rises in challenging, and at times aggressive, behaviours in the classroom (EAB 2019; Santor, Bruckert, and McBride 2019). When polled, the majority of educators and school personnel in the United States report that disruptive behaviours have been steadily increasing over the past three years, particularly in early elementary school grades (EAB 2019). Given the rise of disruptive behaviours observed among students in schools today, a more comprehensive understanding of the mental health profiles of these children, as well as the context surrounding their experiences, is required to inform appropriate prevention and intervention measures. The present study provides insight into the characteristics and social-emotional experiences of a sample of

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children accessing mental health services at a Canadian children's mental health agency who demonstrate disruptive school behaviours.

Problematic school behaviours

Problematic school behaviours can be generally defined as behaviours that impede or inhibit learning in the classroom and place the student exhibiting them and/or another person(s) at risk for experiencing other problems either at school or extending into other domains of their life (Morgan and Sideridis 2013). Problem or challenging behaviours, which can vary in severity, may include verbal aggression towards a teacher and/or other students, moving around the classroom during class time, and defiance in the face of discipline (Beaman, Wheldall, and Kemp 2007; Dunlap et al. 2006).

It is well-established in the literature that problematic school behaviours are linked with several deleterious outcomes in social, psychological, and academic spheres of functioning (Henricsson and Rydell 2006). Extensive research has demonstrated the association between behavioural difficulties and lowered academic achievement (Morgan and Sideridis 2013; Okano et al. 2020; Zimmermann et al. 2013). For example, a recent longitudinal study with over 2000 participants between the ages of three and 12 years found that problem school behaviours predicted decreased reading performance over time (Kremer et al. 2016). Additionally, a study with over 1400 students aged six to 12 years found that disruptive behaviours in the classroom were associated with poor emotional functioning such as deficiencies in self-regulation and stress management skills (Esturgó-Deu and Sala-Roca 2010). Further, these problematic school behaviours not only affect students and their peers but they also have the ability to impact others within the educational setting as well. Numerous studies have reported that many teachers suffer from intense workplace stress, with problematic and disruptive student behaviours serving as a large contributor (Hastings and Bham 2003; Skinner and Beers 2016).

The multiple risks model

Sameroff's multiple risk model (1998) can be effectively applied to help explain the enduring presence of difficult school behaviours and the negative consequences that follow for the children who experience them. This theory posits that a developing child is situated in various social contexts that influence their developmental trajectories. The interactions between the child and these social contexts are continuous and dynamic in nature (Sameroff et al. 1998), meaning that they continually, and across time, influence the child and are influenced by the child. For example, a child's problematic school behaviour may simultaneously influence the quality of the relationships they form with their peers and be influenced by the quality of their relationships with their peers. While other theories that also concentrate on explicating development share similar qualities such as a transactional framework between the child and the environment (e.g. Bronfenbrenner's bioecological model of development; Bronfenbrenner and Morris 2006), the multiple risks model specifically focuses on the factors (i.e. risks) that negatively shape development (Gutman, Sameroff, and Cole 2003). Decades of literature have consistently found evidence that the experience of multiple risks, such as social, psychological, and attachment difficulties, has significant and negative developmental consequences for children in several domains, including the presentation of externalising behaviours and self-regulation difficulties (Appleyard et al. 2005; Evans, Li, and Whipple 2013; Gach et al. 2018).

It is not uncommon for children who are accessing care at a Canadian community mental health agency to be experiencing challenges in several domains, such as the home environment, and cognitive functioning. When applying Sameroff's (1998) model, it follows that children who experience and are referred for mental health challenges and significant school difficulties are far more likely to experience negative developmental outcomes in multiple domains compared to children who experience none or only some of the listed risk factors (Morgan and Sideridis 2013).

The Current study

In addition to established associations between problematic school behaviours and adverse developmental outcomes, meta-analytic literature also highlights links between several mental health disorders and school functioning (see Gustafsson et al. 2010 for a review of the literature). Although previous literature has documented these links, few studies have investigated problematic school behaviours in children accessing mental health services. Therefore, there is a need for a more comprehensive understanding of the relationship between engaging in problematic school behaviours and various indices of social and emotional development, particularly in a population of children who are experiencing various other risk factors including mental health challenges and difficult home climates.

The purpose of this study was to compare children with minimal problematic school behaviours and children with moderate to severe problematic school behaviours across emotional symptoms, conduct problems, hyperactivity-inattention, peer relationship problems, and prosocial behaviour. Using a sample of children seeking mental health treatment at a community mental health agency who are also experiencing challenges in several domains, the present study offers a more complete understanding of the association between problematic school behaviours and social and emotional functioning. Given the nature of our sample, Sameroff et al.'s (1998) multiple risks model was used to guide the analysis, as it was expected that children who presented with moderate to severe problematic school behaviours were also more likely to experience poorer social and emotional development compared to children who engaged in minimal problematic school behaviours. While the present paper contributes to and extends the existing scholarship on the topic, it also offers insight into pragmatic solutions regarding how to address problematic behaviours within the school system, especially among children who face multiple risk factors.

Methods

Sample

The present study uses a sample of children who sought services at a Canadian community children's mental health agency between Spring of 2017 and Fall of 2018. The mental health centre is a no-cost, accredited community mental health agency that provides mental health services to children aged 12 and under and their families. The children receiving treatment from this children's mental health agency are typically experiencing moderate to severe emotional, behavioural, and social difficulties.

The total study sample consisted of 360 children. The sample was stratified based on participants' engagement in difficult behaviours in the school context, with 180 children presenting with minimal or no problematic school behaviours, and 180 children presenting with moderate to severe problematic school behaviours. Each stratified group was matched on age and gender since these were found to be significant correlates with problematic school behaviours. The mean age of the total sample was Mage = 7.70, SD = 1.867, with ages ranging from 3-years-old to 11-years-old. The sample consisted of 266 males (73.9%), with one child identifying as unknown for gender.

Data collection and measures

Given that the data for the current study are secondary, secondary ethics approval was obtained from the University ethics board to use the data collected by the community children's mental health agency for research purposes. The data collected by the agency are housed within a shared database and includes de-identified demographic (e.g. date of birth, sex) and measure data (CANS, SDQ) for children who visit the mental health centre. A subsample of children from this shared database was used for the current study.

Child and adolescent needs and strengths (CANS)

The Child and Adolescent Needs and Strengths (CANS) scale is a clinician-reported assessment tool commonly used in mental health settings to assess and report the needs and strengths of a child and their family (Lyons et al. 1999). A short form version of the tool – the Mini School-Aged CANS – constitutes the present study's measure, which was used at the community children's mental health agency. This shorter version of the CANS includes six scales which includes mental health needs (e.g. anxiety), risk behaviours (e.g. self-injurious behaviours), educational needs (e.g. school attendance), child/youth individual strengths (e.g. problem-solving skills), family needs and strengths (e.g. parental responsiveness), and parent/family/caregiver needs and strengths (e.g. understanding impact of parental/caregiver behaviour on child). The scale comprises a total of 28 items, each of which is scored on a four-level Likert scale (i.e. 0–3) to determine necessary levels of action to be provided to a child. Given that previous scholarship has validated the use of a single CANS item to measure a specific need or strength (e.g. Anderson et al., 2003), the current study used the single item of Compliance to School Discipline to measure problematic school behaviours which fits within the educational needs subscale. The Compliance to School Discipline item rates the overall behaviour problems of a child at school, including their severity and the nature of subsequent sanctions received. A level zero on the item indicates *no evidence of behaviour problems at school*, a level one constitutes *mild problems* (single office referral), a level two indicates *moderate problems* (disruptive; suspensions/detentions), and a level three represents *severe problems* (frequently or severely disruptive; several sanctions; school placement potentially jeopardised).

Strengths and difficulties questionnaire (SDQ)

The Strengths and Difficulties Questionnaire (SDQ) is a behavioural screening measure completed by a parent or teacher to assess a child or youth's mental, social, emotional, and behavioural functioning (Goodman 1997). The measure's 25-items make up five scales which include emotional symptoms (e.g. often complains of headaches), conduct problems (e.g. often fights with other children), hyperactivity-inattention (e.g. easily distracted, concentration wanders), peer relationship problems (e.g. prefers solitary, tends to play alone), and prosocial behaviour (e.g. considerate of others feelings) (Goodman 1997). Items are scored on a three-point Likert scale ranging from *not true* (0), *somewhat true* (1), and *certainly true* (2). The SDQ shows evidence of concurrent validity, with the scores from the SDQ and the Rutter Questionnaire being highly correlated for parent ratings ($r = 0.88$; Goodman 1997; Stone et al. 2015). The SDQ has exhibited moderate test-retest reliability ($r = 0.71$; Yao et al. 2009) and has shown to have strong internal consistency with a Cronbach's alpha of 0.81 (Yao et al. 2009). All subscales were included in our analyses (see Table 1 for further subscale descriptions).

Table 1. Strengths and Difficulties Questionnaire subscales and items.

Subscales	Individual Items
Emotional Problems Scale	*Often complains of headaches, stomachaches, or sickness*
	Many worries, often seems worried
	Often unhappy, downhearted or tearful
	Nervous or clingy in new situations, easily loses confidence
	Many fears, easily scared
Conduct Problems Scale	*Often has temper tantrums or hot tempers*
	Generally obedient, usually does what adults request
	Often fights with other children or bullies them
	Often lies or cheats
	Steals from home, school or elsewhere
Hyperactivity Scale	*Restless, overactive, cannot stay still for long*

(*Continued*)

Table 1. (Continued).

Subscales	Individual Items
	Constantly fidgeting or squirming
	Easily distracted, concentration wanders
	Thinks things out before acting
	Sees tasks through to the end, good attention span
Peer Problems Scale	*Rather solitary, tends to play alone*
	Has at least one good friend
	Generally liked by other children
	Picked on or bullied by other children
	Gets on better with adults than with other children
Prosocial Scale	*Considerate of other people's feelings*
	Shares readily with other children (treats, toys, pencils, etc.)
	Helpful if someone is hurt, upset, or feeling ill
	Kind to younger children
	Often volunteers to help others (parents, teachers, other children)

Results

Data analysis strategy

The purpose of the present study was to compare children who presented with minimal problematic school behaviours (received a score of 0 or 1 on the CANS Compliance to School Discipline variable) and moderate to severe problematic school behaviours (received a score of 2 or 3 on the CANS Compliance to School Discipline variable) on several indices of social and emotional development as reported using the SDQ (i.e. emotional symptoms, conduct problems, hyperactivity-inattention, peer relationship problems, and prosocial behaviour). First, preliminary Spearman correlational analyses were conducted to examine the associations between all variables included in the study. Next, a one-way analysis of variance (ANOVA) was conducted to compare children who engaged in minimal problematic school behaviours with children who engaged in moderate to severe problematic school behaviours on the five areas of social and emotional functioning. Engagement in problematic school behaviours was entered as the independent variable in the one-way ANOVA. The five subscales of the SDQ measuring various domains of social and emotional functioning were entered as the dependent variables. When Levene's test for homogeneity of variance was violated ($p > .05$), indicating that the variance was not equal across groups, an alternative test was conducted that does not rely on this assumption. Specifically, a Welch test was run to compare the two groups of participants.

Statistical analysis

Preliminary analysis

In regards to the demographic information for the participants who presented with minimal problematic school behaviours, the ethnic make-up was homogenous with just over 70% of children identifying as White. The remaining 30% was dispersed across several different ethnicities including Black (1.7%), Indigenous (1.1%), South Asian (1.1%), and Arab (1.1%), among others. Additionally, 94% of the children in this minimal problematic school behaviours group were reported to be attending school. The demographic information for the group of children reported to engage in moderate to severe levels of problematic school behaviours was similar. Approximately 73% identified as White, with the remaining 27% of participants identifying with many different ethnicities. These included Black (3.3%), Arab (2.2%), South Asian (1.1%), and Chinese (1.1%). Roughly 97% of these children were reported to be attending school.

Spearman correlation was conducted to assess the associations between the study variables. The results (see Table 2 for correlations between study variables) of the Spearman correlation analysis indicated that problematic school behaviours were significantly correlated ($p < .05$) with conduct problems ($r = .241$), hyperactivity-inattention ($r = .153$), and peer relationship problems ($r = .226$). However, no statistically significant associations were found between disruptive behaviours at school and emotional symptoms or prosocial behaviour.

Table 2. Correlations among study variables.

	CANS SD	Emotional	Conduct	Hyperactivity	Peer	Prosocial
CANS SD	1.00	-.019	.241**	.153**	.226**	-.079
Emotional		1.00	.069	.088	.223**	.064
Conduct			1.00	.326**	.260**	-.235**
Hyperactivity				1.00	.232**	-.126*
Peer					1.00	-.201*
Prosocial						1.00

Note: CANS SD = CANS school discipline variable (problematic behaviours).
* p < .05; ** p < .001

Primary analysis

The results of the ANOVA see Figure 1 for a comparison of means Figure 1 revealed a significant difference between children who engaged in minimal problematic school behaviours and children who engaged in high levels of problematic school behaviours when examining peer relationship problems, $F(1, 358) = 15.389$, $p = .000$. Specifically, students who engaged in more disruptive behaviours at school also experienced greater problems in their relationships with peers compared to children who did not engage in problematic school behaviours. No significant differences were found between the two groups when investigating their relation to emotional symptomology ($F(1, 358) = .112$, $p = .738$) and prosocial behaviour ($F(1, 358) = 1.658$, $p = .199$), indicating that the severity of problematic school behaviours did not affect functioning in these areas.

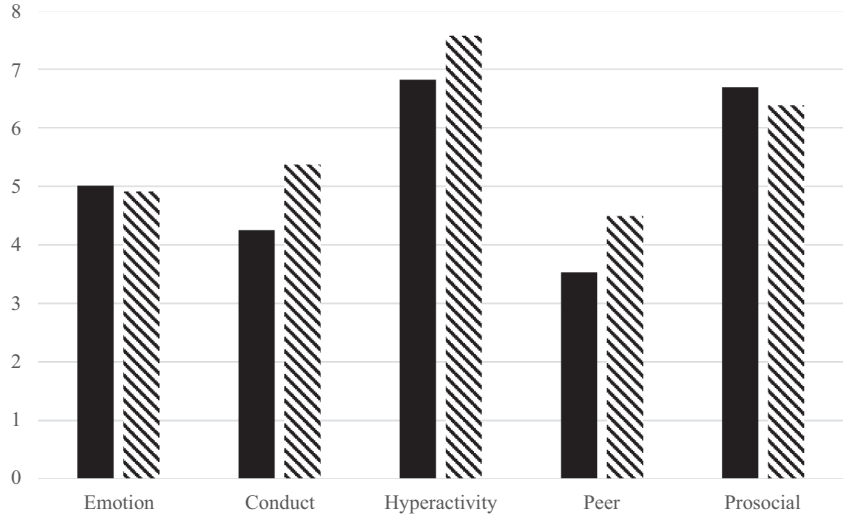

Figure 1. *Note:* Black bars = participants with minimal disruptive behaviour problems; diagonal bars = participants with moderate to severe disruptive behaviour problems.

Levene's test for homogeneity of variance was violated ($p > .05$) for the conduct behaviour and hyperactivity-inattention subscales. As such, a Welch test was conducted to determine if any statistical differences existed between the two groups of children. The Welch test revealed a significant difference between children who experienced minimal to no problematic school behaviours and children who were involved in more frequent and serious disruptive behaviours at school when examining hyperactivity-inattention, $F(1) = 7.029$, $p = .008$, indicating that children who exhibited problematic school behaviours also displayed greater challenges with hyperactivity and inattention. A significant difference was also found between groups for conduct problems, $F(1) = 23.216$, $p = .000$, suggesting that children who seldom engaged in disruptive school behaviours also displayed fewer conduct-related problems compared to children who engaged in moderate to severe challenging behaviours at school.

Discussion

With reports of disruptive classroom behaviours rising in many countries across the world (e.g. Ofsted, 2014; Santor, Bruckert, and McBride 2019), there has emerged a clear need to further understand such behaviours in various student populations. A key difference in the present study is its use of a unique sample of children who are seeking mental health services. While associations have been found regarding problem school behaviours, mental health challenges, and several spheres of functioning (e.g. Gustafsson et al. 2010; Henricsson and Rydell 2006), there is a paucity of research investigating problematic school behaviours in children accessing mental health services. The current study sought to describe and compare a sample of children who displayed disruptive and problematic school behaviours in varying degrees, and who were also accessing mental health treatment, offering a more comprehensive and clear understanding of the link between problematic school behaviours and social and emotional development.

Demographic information

The majority of the study's sample of children were boys (74%), which is consistent with research literature that demonstrates boys engage in more problematic school behaviours as compared to girls (Beaman, Wheldall, and Kemp 2007; Geven, O Jonsson, and van Tubergen 2017; Maschi et al. 2008). The mean age of our sample was around seven to eight years of age. Considering that the onset of several mental health disorders and behavioural challenges is often around late childhood to early adolescence (APA, 2013), this mean age is also consistent with research literature. Importantly, the demographic information pertaining to gender and age is congruent with the overall demographic patterns observed by the children's mental health agency, where the mean age is *M*age = 7.89 and roughly two-thirds (66.3%) are boys. Ethnic make-up did not differ between groups, with the majority of the children identifying as White. The age, gender, and ethnic make-up of our sample are also consistent with the overall make-up of the client population at the mental health agency. Additionally, age in years was significantly and positively correlated with the SDQ subscale of emotional symptoms indicating that as children age their emotional symptoms and stress increase in severity. The literature on the SDQ emotional problems subscale and age is mixed, with some studies showing increases in severity as children age (Maurice-Stam et al. 2018), and other studies finding no meaningful correlation (Woerner, Becker, and Rothenberger 2004a). However, these norms are based on European samples of children and may not accurately describe the patterns of responses for North American children. Given the limited research investigating SDQ norms in a Canadian sample (Woerner et al. 2004b), it would be worthwhile for future research to assess the psychometric properties and patterns of responses of the SDQ in a Canadian sample of children to provide a clearer understanding of the developmental trajectories for each subscale.

School attendance

School attendance also did not differ significantly between groups; however, children who engaged in moderate to severe problematic school behaviours reported slightly higher school attendance rates. It seems that despite behavioural issues requiring disciplinary sanctions in the school context, these problems are not preventing these children from attending school. Although speculative, it is possible that the high attendance rates found among children who exhibit problematic school behaviours may be due to a lack of parental capacity to keep children home when needed. It is plausible that social-economic status (SES) (e.g. family annual income, parent education level) may be contributing to the parents' inability to keep their kids at home while simultaneously increasing a child's risk of engaging in problem behaviours at school (Hoglund and Leadbeater 2004). For example, a single parent who does not have post-secondary education and works two minimum-wage jobs will have greater financial instability and less job flexibility. In turn, limiting their capacity to keep their kids home from school, and increase the likelihood of the child's exposure to SES-related environmental stressors, which have been found to be associated with emotional and behavioural challenges (Pagani, Boulerice, and Tremblay 1997).

Additionally, it is worth noting that the school attendance statistics from the present study may not adequately capture suspensions or expulsions experienced by students who behave inappropriately in the classroom. It is possible that the parent or guardian indicated that their child is currently attending school at the mental health agency, even if their child has been suspended during the school year. Future research should investigate more closely how certain behavioural issues and subsequent disciplinary actions affect school attendance in similar groups of students. Additionally, a more sensitive measure of school attendance would also provide greater depth of information on suspensions and expulsions.

Problematic school behaviours and functioning difficulties

Our findings reveal a significant difference between children who engage in minimal problematic school behaviours and children who engage in moderate to severe problematic school behaviours in several areas of functioning. First, the results indicate that children who participated in more frequent and severe problematic school behaviours also displayed greater levels of inattention, hyperactivity, disobedience of classroom rules, and aggressive behaviour as compared to children who minimally engaged in problematic school behaviours. These findings make conceptual sense and are well-supported by research literature (Beaman, Wheldall, and Kemp 2007; Coie et al. 1992; Henricsson and Rydell 2006).

In regard to inattention and hyperactivity, a significant amount of literature has found support that these types of behaviours, whether they reach clinical levels or not, are disruptive in the classroom environment (Junod et al. 2006; Lauth, Heubeck, and Mackowiak 2006). Similarly, conduct problems such as aggression and disobedience are often deemed problematic by stakeholders within the educational realm. For example, Beaman and colleagues (2007) summarised several studies that investigated specific disruptive behaviours that teachers commonly experienced. Most frequently, indicators of conduct problems, such as destroying school property and refusing to listen, were reported by teachers.

Research has also demonstrated that inattention, hyperactivity, and conduct problems are often comorbid with one another and are linked with other difficulties such as challenges with self-regulation, complying with authority, and uncontrollable behaviours and emotional outbursts (APA, 2013; Beaman, Wheldall, and Kemp 2007). Our correlational analyses support these findings, revealing a significant correlation between conduct problems and hyperactivity-inattention. While it is possible that this relationship is sequential, where for example, conduct problems lead to more disruptive behaviour, a more plausible explanation of these findings is a bidirectional effect. For example, a teacher who must routinely manage a student's inattentive and aggressive behaviour

will, most likely, experience greater amounts of occupational stress (Greene et al. 2002) and may resort to unconstructive disciplinary measures. As the relationship between the teacher and the student becomes more hostile and centred around punishment, a student may be placed at greater risk for continuing to engage in problematic school behaviours.

The results also indicate that children who displayed problematic school behaviours also had greater peer relationship issues compared to children who did not participate in high levels of problem behaviours. This finding regarding peer relationship problems is consistent with previous studies that show children who display greater externalising behaviour challenges (e.g. outbursts in the classroom, throwing objects when upset) are more often involved in bullying incidents (Marengo et al. 2018; Smokowski and Kopasz 2005). It may be that children who are engaging in disruptive behaviours in the classroom, interrupting their peer's learning environment, and leading to frustration and tension for both the teacher and the classmates, also become involved in bullying-related behaviour, either as a student who bullies, or being bullied themselves. Literature has found that students who engage in moderate to severe problematic school behaviours are also at a greater risk of being rejected and excluded by their peers (Henricsson and Rydell 2006). Aligned with the scholarship described above, our correlational analyses revealed significant correlations between peer relationship problems, conduct problems, hyperactivity-inattention, and problematic school behaviour. These associations illustrate the interconnected nature of how these challenging behaviours and difficulties manifest in the school context, and support Sameroff et al.'s (1998) model in that risks tend to accumulate in the same group of children.

While we are unable to draw any causal conclusions from the current study, it is likely that these findings are bidirectional in nature. For example, a student who displays greater disruptive behaviour in the classroom will also experience greater peer problems and challenges with conduct and hyperactivity-inattention, which then leads to further disruptive behaviours. Research supports the bidirectional influence of effects in that students who display conduct-related problems are typically excluded by their peers, which then can lead to increased risks of increased problem behaviours (Coie et al. 1992; Powell, Lochman, and Boxmeyer 2007). Future research looking at these associations over time will provide clarity to the possible bidirectional nature between problematic school behaviours and functioning challenges in several domains.

Interestingly, no significant differences were found between the two groups of children in regard to their emotional symptoms and prosocial behaviour. These results are somewhat inconsistent with the previous literature on the topic which indicates that students who engage in problematic school behaviours often experience greater emotional problems (Kim & Page, 2013) and a lack of kind and helpful behaviours (Cook et al. 2010; Kokkinos and Panayiotou 2004). Our results suggest that the two groups of children, although presenting with very different behaviour in the school context, have similar experiences of emotional problems and prosocial skills, which may speak to the population from which we drew our sample from. Specifically, the sample consisted of children accessing mental health services, and thus, while they presented with challenges at school, they are also more likely to have heightened emotional and social functioning difficulties compared to children who do not require mental health support, resulting in no meaningful differences between the two groups.

Limitations

Although the current study provides insight into the social, emotional, and behavioural functioning of students with problem school behaviours requiring discipline, some limitations should be noted. One drawback is that the data collected from the CANS measure are not continuous. When data is categorical, the ability to discern a relationship between the variables decreases (Altman & Royston, 2006). Even more so, when data is categorical, the variation within each group is underestimated. When analysing categorical data, there is greater risk of obtaining a false positive result (Altman & Royston, 2006). While the results of this study illustrate important associations between school problem behaviour and impulse control challenges, the findings should be interpreted in light of

the limitations. It would be useful for future research to assess problematic school behaviours in a sample of children accessing mental health services utilising measurement tools that assess the study variables along a continuum. Data analysis and results using continuous data may provide a more nuanced and accurate interpretation of the relation between problematic school behaviours and social and emotional functioning.

Another limitation of this is the inclusion of children between the ages of three and five years of age. While the Canadian community mental health agency uses a preschool version of the CANS (i.e. PCANS), the version of the CANS measure that was used for the present study is intended for children between the ages of six and 12 years. Additionally, the version of the SDQ utilised is designed for children four and up. The decision was made to include children younger than these limits because the data were available within the shared database and the parents stated their child was attending pre-school or school, which allowed us to include them in all the analyses regarding problematic school behaviours and social and emotional functioning. However, given that these measures are intended for use in slightly older children, it is possible that the CANS reports for children three to six years old, and the SDQ reports for children who are three years old are lacking validity.

Implications

This study has important implications for both research and practice. From an academic and research perspective, our study extends the relevant literature and offers a deeper understanding of the association between problematic behaviours in the school context and multiple areas of functioning using a sample of children who are currently accessing mental health services at a Canadian mental health agency. There is limited understanding in current research literature pertaining to how disruptive behaviours present and influence key developmental outcomes in this specific population of children. While more research is required to further elucidate the relation between problem behaviours at school and functioning in various domains, the present study offers important insight into the demographic and social and emotional developmental outcomes of children who engage in problematic school behaviours and who are also accessing mental health services.

With the rising incidence and the stability of childhood school problems behaviours (The Office for Standards in Education, Children's Services and Skills 2014; Hatoum et al. 2018), the question then becomes, how do we support educators and other school professionals as they support children experiencing these behaviours? Since problem school behaviours are multifaceted, a multi-systemic and tiered approach that targets students, teachers, classrooms, and the school as a whole is strongly recommended (Goldberg et al. 2019). At the student level, literature indicates that having students engage in primary, secondary, and tertiary intervention strategies that target problematic, and at times, aggressive behaviour patterns aimed at educators can be an effective approach (Walker and Shinn 2002). At the teacher level, teachers should enforce established classroom and school rules, as well as reward positive behaviours (Espelage et al. 2013). At a classroom level, clear expectations and the provision of skills to students to handle difficult behaviours and social situations (e.g. bullying) have been found to be an effective strategy (Henry et al. 2000). Looking at the whole school, research indicates it is best when the practices and rules found within the classroom are supported by policies that are adopted by the entire school (Maehr and Midgley 1991). Importantly, it has been recommended that school psychologists play an active and consultative role in each of the above contexts when implementing evidence-based school-wide intervention programmes and policies to help combat the imperative problem of problematic school behaviours (Hyman and Perone 1998). The inclusion of school psychologists is particularly relevant given the likelihood that children who display problematic school behaviours might also be experiencing significant mental health challenges, which is the case with our specific sample.

Conclusion

Taken together, the present report provides a concise and useful description of a sample of children who display problematic school behaviours in varying degrees of severity and are at the same time, seeking mental health services. Overall, the results from the study suggest that there are several adverse developmental consequences associated with disruptive and challenging behaviour at school. Additionally, given the stability of such problem school behaviour (Hatoum et al. 2018), it is concerning which developmental trajectories may follow if appropriate intervention is not undertaken. This may be especially important in a population of children who are experiencing other mental health concerns, such as the children in the present study's sample. Our findings speak to a need for schools, parents, and mental health personnel to collaborate in mitigating problematic school behaviours and promote healthy developmental functioning.

Disclosure statement

No potential conflict of interest was reported by the authors.

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