



Association of School Engagement, Academic Difficulties and School Avoidance with Psychological Difficulties Among Adolescents Admitted to a Psychiatric Inpatient Unit

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Abstract

Mental illness is a pressing public health concern, particularly when the onset is during childhood or adolescence. Many youth admitted to hospital-based psychiatric care experience school-related difficulties. The purpose of this report was to explore the associations of academic difficulties, school avoidance and school engagement to total psychological difficulties and emotional problems. Youth completed surveys that included standardized measures of school-related factors and the Strengths and Difficulties Questionnaire while in hospital. Psychiatrists provided the primary diagnosis and diagnosis most responsible for the current admission. In total, 161 patients participated in this study (mean age 15 years, SD 1.4; 75% female). All three school-related variables were significantly associated with emotional problems; however, only school avoidance and academic difficulties were associated with total difficulties. School-related concerns were significantly associated with the severity of mental health symptoms. Patients may benefit from attention to school-related difficulties before discharge from psychiatric care that continues beyond school reintegration.

Keywords Psychiatric illness · School avoidance · Academic difficulty · School engagement

Approximately 20% of children and youth are living with one or more mental health disorders and 14% have symptoms indicating significant impairment and distress at school, home or the community (Angold & Costello, 1995; Chun, Mace, & Katz, 2016; Merikangas et al., 2010; Waddell, McEwan, Shephard, Offord, & Hua, 2005). About half of psychiatric illnesses are present by 14 years of age, and 75% have an onset by 24 years; therefore, addressing mental health problems during childhood and adolescence may be critical for successful transition to adulthood (Kessler et al., 2005). Psychiatric disorders during childhood and adolescence interfere with development and impair functioning in several domains including the school and home, and can lead to poor educational and unemployment outcomes (Esch et al., 2014; Fergusson & Woodward, 2002; Hale, Bevilacqua, & Viner, 2015; Kessler, Foster, Saunders, & Stang,

1995; McLeod, Uemura, & Rohrman, 2012; Veldman, Reijneveld, Ortiz, Verhulst, & Bültmann, 2015), decreased family income (Offord & Lipman, 1996), welfare receipt and homelessness (Forchuk, Russell, Kingston-MacClure, Turner, & Dill, 2011; Hale et al., 2015), and other mental health difficulties such as substance use (Maughan & Rutter, 2001; Weissman et al., 1999). Moreover, the number of visits to mental-health emergency departments and psychiatric hospitalizations by American and Canadian youth has risen dramatically in recent years; a 32.5% increase in mental health-related emergency department visits has been reported (Chun et al., 2016; Gandhi et al., 2016). Ninety percent of the admissions into child and youth psychiatric units occur due to a crisis (in most cases suicide risk) (Greenham & Persi, 2014). The average length of stay can vary from about 5 days for crisis intervention and stabilization to 22 days for preliminary treatment depending on the focus of the unit (Greenham & Persi, 2014; Weiss et al., 2015) after which youth return to their homes, schools and community.

Successful school reintegration hinges on many factors. Low academic competence, poor relationships with school personnel, a lack of personal coping skills and poor peer relationships were the most common fears that therapists

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and parents have reported about youth hospitalized for psychiatric care (Blizzard, Weiss, Wideman, & Stephens, 2016; Clemens, Welfare, & Williams, 2010; Simon & Savina, 2007). However, for many youth, school-related difficulties prompted the admission to hospital. Anxiety, including anxiety about school, has been reported by psychiatrists as the diagnosis most responsible for youth hospitalized for psychiatric care (Preyde, Parekh, Warne, & Heintzman, 2017). While hospitalized for psychiatric care, youth have reported concerns about how to manage the social context and their ongoing mental health symptoms, in addition to academic challenges as most difficult for school reintegration (Preyde et al., 2017). Thus, knowing the school-related challenges youth with psychiatric disorder experience may inform social work and school mental health services (Herman, Cho, Marriott, & Walker, 2018; Kern et al., 2017) and policy development. The purpose for this report was to explore school-related difficulties and school engagement youth report while hospitalized for psychiatric illness.

School-related challenges may include poor school engagement (Brière, Janosz, Fallu, & Morizot, 2015), poor academic functioning (Buckle, Lancaster, Powell, & Higgins, 2005; Reid, Gonzalez, Nordess, Trout, & Epstein, 2004; Zimet & Farley, 1993) and school avoidance (Knollmann, Knoll, Reissner, Metzelaars, & Hebebrand, 2010), and have been shown to be concerns for youth with mental illness and have been associated with school failure (Fagel, de Sonnevile, van Engeland, & Swaab, 2014). Youth with psychiatric disorders may also experience difficulty in managing their symptoms of mental illness (Fagel et al., 2014; Riglin, Petrides, Frederickson, & Rice, 2014). Some preliminary research (e.g., Knollmann et al., 2010; Preyde et al., 2017) suggests that understanding and addressing school-related difficulties in youth who have been hospitalized for psychiatric illness may reduce recidivism, ease stress and improve youths' quality of life.

Children and adolescents spend a large portion of their time in the school context; hence, this context has the potential to further impact the mental health of youth with psychiatric disorder. Emotional problems have been shown to be strongly correlated with poor grades and school failure; for example, over 50% of students who do not complete secondary school have been reported to have diagnosable psychiatric disorders, and an estimated 46% of secondary school failures are ascribed to these disorders (Vander Stoep, Weiss, Kuo, Cheney, & Cohen, 2003). The experience of failure may further aggravate psychiatric symptoms. Moreover, interpersonal problems are compounded in children with psychiatric illness since they often have lower social skills than their peers and therefore face much greater difficulty in developing and maintaining positive relationships (Hammen & Brennan, 2000; Zakriski & Prinstein, 2001). Youth with psychiatric illness often experience stigma and

bullying which may also affect their school experiences (Kaushik, Kostaki, Kyriakopoulos, 2016; Waseem, Arshad, Leber, Perales, & Jara, 2013). The associations between these school-related factors and mental illness symptoms are not fully understood. School engagement, academic difficulties and school avoidance may prove to be useful targets for intervention to foster successful school experiences for youth with psychiatric illness.

School engagement has been shown to be positively correlated with good mental health (Lyons, Huebner, & Hills, 2013; Wang & Peck, 2013); however, low or poor school engagement is a significant concern for youth with psychiatric disorder. School engagement is a multidimensional construct and refers to student interest and investment in the school context. It encompasses a student's *behavioral engagement*, outward displays of compliance with school expectations and involvement in activities, *emotional engagement*, emotional connection to and value placed on academics, people within the school context, and the school as a whole, and *cognitive engagement*, intentional investment in academic work, that is, students' attempts to deeply understand the subject matter provided in school (Fredricks, Blumenfeld, Friedel, & Paris, 2005). Low school engagement has been reported to be linked to depression, behavioral problems and school failure, and depression and substance use into adulthood (Henry, Knight, Thornberry, 2012; Wang & Fredricks, 2014; Wang & Peck, 2013). Many youth with psychiatric illness experience academic difficulties (Reid et al., 2004), and in fact, many of these youth have difficulty completing school or progressing to post-secondary education (Roy, Rousseau, Fortier, & Mottard, 2016). Some youth with psychiatric illness may try to avoid school in an attempt to cope with difficulties. School avoidance or school refusal encompasses a continuum of strategies children use to circumvent going to school or staying in school for the required duration. Though truancy may be one reason for school avoidance the focus for this report is anxiety-related school avoidance. Clinical samples of school avoiders have been reported to have school failure, problems with social integration, and a negative perception of the school climate (Kearney, 2008; Knollmann et al., 2010). There is a dearth of research on the school experiences of youth hospitalized for psychiatric illness. Exploring school engagement, academic difficulties and school avoidance in youth hospitalized with psychiatric illness may provide a helpful way to identify youth who are at risk for school difficulties. Knowing the levels and relative contribution of youth behavioral, cognitive, and emotional engagement in school as well as academic difficulty and school avoidance to youth clinical symptoms may be useful for discharge and transition planning.

The school context, as noted above, has been identified as a significant concern for youth admitted to hospital for

psychiatric illness and for successful school re-entry following psychiatric hospitalization; therefore, the purpose for this report was to explore youths' self-reported school engagement, academic difficulties and school avoidance before discharge from hospital. A second purpose was to explore the association of these school-related factors to youths' self-reported clinical characteristics. It was hypothesized that academic difficulties and school avoidance would be positively associated with the severity of clinical symptoms, and school engagement would be negatively associated with these symptoms.

Methods

Research ethics clearance was obtained from Grand River Hospital and the University of Guelph. All participants provided informed consent. Participants were recruited from the Child and Adolescent In-Patient (CAIP) Unit in south-western Ontario Canada, which provides crisis assessment, stabilization, and short-term treatment for children and adolescents. The unit is situated in a medium-sized city and serves the surrounding region including rural, urban and suburban areas. Children and adolescents were excluded from the study if they had an intellectual disability or pervasive developmental disability or were in a state of psychosis; adolescents who were no longer in a state of psychosis later in their stay then became eligible for participation. Hospital staff determined eligibility. For youth 14 years old and older, hospital staff asked all eligible youth if they were interested in hearing more about this study from a research assistant (RA). The first names and location of those interested were given to the RA who obtained informed consent and administered the survey. For youth under the age of 14, hospital staff asked caregivers if RAs could contact them concerning the study. If caregivers agreed, RAs phoned caregivers to ask for consent for children to participate; children were consequently asked for their assent to take part in the study. Surveys were completed in private locations such as meeting rooms within the unit.

Measures

The surveys included demographic information and standardized measures of school engagement, academic difficulty, school avoidance and psychological difficulties. School engagement was measured with the School Engagement Measure (SEM; Fredericks et al., 2005) which was used to gauge participant's behavioral, emotional and cognitive engagement at school. This scale has strong face validity and adequate levels of internal consistency ($\alpha = 0.67\text{--}0.74$) and concurrent validity ($r = .44\text{--}.57$) (Fredericks et al., 2005). Participants responded to items on a 5-point scale with

responses ranging from "Never" (1) to "All of the Time" (5). Some example items are "I like being at school," "I pay attention in class," and "I check my schoolwork for mistakes." Higher scores correspond to higher levels of engagement and are presented as mean scores. This self-report scale has successfully been used with adolescents (e.g., Yusof, Ang, Oei, 2017). Academic difficulties and school avoidance were measured with modified subscales of the Child report version of The MacArthur Health and Behaviour Questionnaire (HBQ-C: Armstrong, Goldstein, & the MacArthur Working Group on Outcome Assessment, 2003) which was modified to allow for a 5-point response option in order to be consistent with the school engagement measure. The modified version has not undergone psychometric testing; it was modified to simplify the overall survey for the youth. A sample item for the academic difficulties measure is "It's hard for me to learn new things." A sample item for the school avoidance is "Sometimes I pretend I am sick so I can stay home from school." The HBQ-C has demonstrated strong psychometric properties (test-retest reliability $r = .61\text{--}.96$) (Ablow et al., 1999; Essex et al., 2006; Lemery-Chalfant et al., 2007; Shirtcliff & Essex, 2008), and has been used with children and adolescents with mental health disorders.

Self-reported clinical characteristics or symptoms were measured with the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ was used to measure emotional problems, conduct problems, hyperactivity and peer problems, and prosocial behaviors (Goodman, 1997). Five items are used to measure each construct on a 3-point scale ranging from "Not at all true" or "Never" (0) to "Certainly true" or "All the time" (2). The higher the sum of the responses per section, the more problematic the area is for the youth; the prosocial scale is an exception where higher scores reflect a higher level of competence. Factor analysis has shown that items are highly related to the sub-categories they are intended to measure, and minimal overlap exists between the constructs measured in the questionnaire (Goodman, 2001). The SDQ has been shown to be valid and reliable: the mean internal consistency score has been reported as $\alpha = 0.73$, and the mean retest stability has been reported as 0.62 (Goodman, 2001). The sum of the first four scales (not including prosocial behaviours) constitutes the total score. For the total difficulty a score of 18 or 19 is considered highly abnormal, and a score between 20 and 40 is considered severely abnormal.

Data Analysis

Descriptive statistics were used to present demographic information and to describe the school and clinical characteristics. Multiple regression was used to explore the associations of school-related factors to generalized Psychological difficulties; no inference of directionality was assumed,

only associations were explored. To control for demographic factors, age and gender were entered into the first block and school engagement, academic difficulty and school avoidance were entered into the second block. In viewing the clinical characteristics, the scores for emotional symptoms reflected severe problems; therefore a subsequent regression was computed to explore the association of school-related variables with emotional symptoms. For this analysis, age and gender were entered as the first block, and school engagement, academic difficulties and school avoidance were entered as the second block.

Results

Of the 239 youth who were eligible for the study, 223 met the inclusion criteria and 161 (RR 72%) participated. The mean age was 15.41 years (SD 1.4; range 8–18 years). Seventy-five percent were female (Table 1). The majority of participants (70.1%) had no prior admissions to CAIP, and almost half of those with prior admissions had only been admitted once. Please note that part of the informed consent process concerned free and informed consent, and youth were reminded that their participation, if they chose to participate, was voluntary and they did not have to complete every question. Thus, some survey questions were skipped, and these varying sample sizes are reflected in the tables.

Psychiatrists provided information on the primary diagnoses and the diagnoses most responsible for the current hospital admission; in some cases, there was more than one primary diagnosis and/or more than one diagnosis most

responsible for the current hospitalization. Most common primary diagnoses were major depression ($n = 91$; 57%), adjustment disorder ($n = 22$; 14%), ADHD/ADD ($n = 22$; 14%), parent–child relational problem ($n = 17$; 11%), social anxiety disorder ($n = 14$; 9%), polysubstance abuse and dependency ($n = 11$; 7%), generalized anxiety disorder ($n = 10$; 6%) and social phobia ($n = 5$; 3%). The most common diagnoses responsible for the current admission were an anxiety disorder ($n = 53$; 33%), major depression ($n = 26$; 16%), parent–child relational problems ($n = 14$; 9%), substance abuse ($n = 14$; 9%), ADHD ($n = 11$; 7%), adjustment disorder ($n = 10$; 6%), borderline personality disorder ($n = 7$; 4%) and PTSD ($n = 5$; 3%).

School-Related Factors and Psychological Difficulties

School-related and self-reported clinical characteristics appear in Table 2. School engagement scores suggest that youth have considerable problems with school engagement (a higher score reflects higher engagement). Of concern is the cognitive engagement score (1.90 out of 5); Cognitive engagement involves self-regulated or strategic learning. In comparison to a normative sample (Fredericks et al., 2005), these scores are statistically lower (total engagement score of our clinical sample mean was 2.37 (0.65) versus a normative sample mean of 3.54 (0.79); $t = 14.46$, $p < .001$). For school avoidance and academic difficulty, higher scores

Table 1 Youth characteristics ($n = 161$)

Characteristics	
Age [mean (SD)]	15.41 (1.40)
Gender [n (%)]	$n = 158$
Female	121 (75.0)
Male	37 (23.0)
Grade [n (%)]	$n = 147$
Grades 3–6	3 (2)
Grade 8	6 (4)
Grade 9	25 (17)
Grade 10	47 (32)
Grade 11	37 (25)
Grade 12	29 (20)
Number of previous visits to CAIP [n (%)]	$n = 157$
0	110 (70.1)
1	24 (15.3)
2	13 (8.3)
3–4	7 (4.4)
5–9	3 (1.80)

Table 2 School variables and psychological difficulties ($157 \leq n \leq 161$)

Scale (measure)	Mean (SD)
Psychological difficulties (SDQ)	
Total difficulties score	21.74 (5.75) ^b
Emotional problems	7.51 (2.40) ^b
Hyperactivity	6.99 (2.68) ^a
Peer problems	4.32 (2.52) ^a
Conduct problems	3.05 (2.10)
Prosocial	8.06 (3.01)
School-related difficulties	
Total school engagement score ^c	2.37 (0.65)
Behavioural scale	3.16 (0.71)
Emotional scale	2.05 (0.81)
Cognitive scale	1.90 (0.88)
School avoidance ^d	3.59 (0.84)
Academic difficulties	3.23 (0.75)

^aHigh

^bVery high

^cHigher score reflects greater engagement range 1–5

^dHigher score reflects greater avoidance and greater difficulty range 1–5

Table 3 Correlation matrix total difficulties (n = 159)

	1	2	3	4	5
1. Total difficulties	–				
2. Gender	– .110	–			
3. Age	.013	.098	–		
4. Academic difficulties	.373**	– .078	– .120	–	
5. School engagement	– .401**	– .001	– .161*	– .399**	–
6. School avoidance	.544**	– .030	.050	.417**	– .582**

*p < .05

**p < .01

Table 4 Are school-related factors associated with total difficulties

	Unstandardized		Standardized β	t	Sig.
	B	S.E.			
Gender	– .003	.002	– .085	– 1.285	.201
Age	.013	.281	.003	.048	.962
Academic difficulty	1.177	.581	.154	2.027	.044*
School engagement	– .833	.755	– .093	– 1.103	.272
School avoidance	2.889	.573	.422	5.043	.000**

*p < 0.05

**p < 0.001

reflect greater difficulty. Youth reported a moderate amount of school avoidance (3.6 out of 5) and academic difficulties in general (3.23 out of 5). On the SDQ, scores on the total difficulties and emotional problems scales were very high indicating severe problems. The peer problem and hyperactivity scale scores were high, and the conduct problem and prosocial scores were in the normal range.

Association of School-Related Factors to Self-Reported Clinical Characteristics

The correlation matrix for total difficulties appears in Table 3. With respect to total difficulties, the analysis indicated that age and gender were not statistically significant contributors to total difficulties ($R^2 = .13$, adjusted $R^2 = .6\%$; $F^{(2,156)} = 0.99$, $p = .37$). With the addition of the school-related variables, 32% of the variance was explained ($R^2 = .317$; $F^{(5, 153)} = 10.39$, $p < .001$). The R^2 change (.013 to .321) was statistically significant (F change^(3,153) 24.59, $p < .001$). The standardized beta coefficients (See Table 4) indicated that school avoidance ($t = 5.06$, $p < .001$) and academic difficulties ($t = 2.06$, $p = .04$) were significantly related to total difficulties. School engagement was not a statistically significant contributor to total difficulties.

With respect to emotional problems, age was not significantly correlated with emotional problems; however,

Table 5 Correlation matrix for emotional problems (n = 156)

	1	2	3	4	5
1. Emotional problems	–				
2. Gender	– .150*	–			
3. Age	.097	.099	–		
4. Academic difficulties	.396**	– .080	– .115	–	
5. School engagement	– .159*	– .002	– .169*	– .384**	–
6. School avoidance	.460**	– .034	.053	.409**	– .583**

*p < .05

**p < .01 level

Table 6 Are school factors associated with emotional problems

	Unstandardized		Standardized β	t	Sig.
	B	S.E.			
Gender	– .002	.001	– .124	– 1.853	.066
Age	.281	.118	.165	2.379	.019*
Academic difficulty	1.007	.245	.312	4.109	.000**
School engagement	.989	.319	.265	3.099	.002**
Academic avoidance	1.363	.244	.473	5.592	.000**

*p < .05

**p < .01

gender was (Table 5). The analysis indicated that 2.2% of the variance was explained by age and gender which was not statistically significant [$F^{(2,153)} = 2.78$, $p = .07$]. With the addition of school-related variables, 31% of the variance of emotional problems was explained [$R^2 = .31$; $F^{(5,150)} = 15.04$, $p < .001$]. The R^2 change (.03–.30) was statistically significant [F change^(3,150) = 22.4, $p < .001$]. The standardized beta coefficients (See Table 6) indicated that

all school-related variables were statistically significant contributors to emotional difficulties.

Discussion

The patients in this study reported severe emotional problems and severe total psychological difficulties, and they reported various school-related challenges. In general, these patients reported considerable school avoidance and academic difficulties, and very low cognitive engagement in school—or very low investment in their school work. They also reported somewhat low behavioral and emotional engagement with school. These school-related experiences were also robustly associated with emotional problems and total psychological difficulties. These results are consistent with past research in which low school engagement was correlated with poor mental health (Lyons, et al., 2013; Wang & Peck, 2013). However, the most consistent associations with these clinical features were school avoidant behavior and academic difficulties.

School avoidance emerged as significantly associated with total difficulties and emotional problems which may be understood as part of the reason for the admission to hospital. For the majority of youth the reason for the in-patient admission was anxiety which is consistent with school avoidance. This finding suggests that even youth with other primary diagnoses such as depression, adjustment disorder or parent–child conflict may also experience school anxiety which warrants special attention. To support school engagement and ultimately school completion as a stepping stone to successful employment and transition to adulthood, special attention to school avoidance and the reasons for this avoidance may be needed.

School avoidance has been shown to arise from perceived individual and social stress, and youth use school avoidance to cope with this stress (Knollmann et al., 2010). Recall that anxiety disorders were the most common reason for the hospitalization. School avoidance and substance use often accompany anxiety disorder which can exacerbate symptoms (Garland, 2001). Anxious school avoidance has been shown to be significantly associated with psychopathology and adverse experiences at school and at home (Egger, Costello, & Angold, 2003). Moreover, school avoidance is also associated with negative outcomes in adulthood and could affect financial security and participation in social life (Knollmann et al., 2010). Thus, it is possible that school issues or difficulty in coping with school issues may be prompting the admission to in-patient psychiatric care, but also these school factors may remain problematic for youth who return to school after receiving psychiatric care.

The psychiatric illness and emotional problems that these youth face may be negatively impacting their ability

to engage at school, academically and socially. Conversely, low engagement within the school context may aggravate the youths' mental health status and strain coping efforts (or abilities). This sample also considered academic demands as challenging and reported low cognitive engagement in school. That youth reported very low cognitive engagement is very concerning though perhaps not surprising. Recall that cognitive engagement refers to students' investments in their learning and their willingness to go beyond fulfilling the basic requirements. The youth in this study reported considerably low cognitive engagement (mean 1.9, SD 0.88) which is statistically lower than normative samples (e.g., mean 3.5, SD 0.73 $t=17.76$, $p<.001$ Fredericks et al., 2005). Moreover, cognitive engagement has been shown to predict academic achievement in normative samples (Rotgans et al., 2018); however, little is known about cognitive engagement in youth with psychiatric illness. Our finding suggests that youth with significant psychiatric illness have difficulty investing in their learning and exerting effort to master subject matter and their academic achievement may be at-risk. It should be noted that youth hospitalized for psychiatric care have reported problems such as a lack of motivation and focus that interfered with their education (Preyde et al., 2017). Thus, the low cognitive engagement may be a symptom of their disorder or a consequence of their lived experience. Further research on strategies to improve low cognitive engagement may inform clinical practice.

Implications for Practice

School avoidance and academic difficulty were significantly associated with psychological difficulties, which suggest that school avoidance, anxiety and potentially other reasons for school avoidance should be expressly explored during clinical assessment to better prepare youth for school re-entry post-discharge. Youth also reported very low cognitive engagement in school which should also be the focus of clinical practice in the health care and in the education systems.

There has been a considerable increase in attention to mental health and addressing mental health disorders in the school context (Kern et al., 2017) and in the transition from hospital to community school. The Mental Health Commission of Canada (MHCC, 2017) had a 10 year mandate funded by Health Canada to be “a catalyst for improving the mental health system and changing the attitudes and behaviours of Canadians around mental health issues.” Governmental school-based mental health supports and services (for example see the provincial School Mental Health Assist in Ontario and the Ministry of Education, 2011), a number of school transition programs (for example see Weiss et al., 2015; White, Langman, & Henderson, 2006) and

school-based psychiatry programs (Herman et al., 2018) have been developed. In many of the programs emotional and informational support is provided to both caregivers and youth. In some areas, main service providers include social workers, nurses and psychiatrists who develop individualized transition plans, guide families as they navigate the mental health and school systems, and are available for contact during crisis. Since most youth go to school which is required until age 18 years in many countries including Canada, offering youth school-based mental health treatment seems logical. However, some youth continue to struggle with the demands within the school context and with managing psychiatric symptoms, and some of these youth may be avoiding school which may be hindering their access to school-based mental health programs. The present findings suggest that youth with psychiatric illness may need better access to treatment, and if they have difficulty at school or avoid school, accessible options should also be provided inside and outside the school context.

Implications for Research

Future research with this relatively understudied population is necessary to advance understanding of the growing number of youth who are hospitalized for psychiatric illness. Further research may improve the identification of patients who will struggle with school avoidance and their access to specialized supports. Further exploration of the fit between need and provision of school-based supports may help youth toward a good developmental trajectory. A comprehensive understanding of the perspectives of youth, caregivers and mental health treatment providers may improve the assistance patients receive within the hospital and as they transition back into the community post-discharge. The field may also benefit from the study of the effectiveness of school-based and transition interventions and in determining for whom these supports are beneficial and how they may be tailored to reach the most vulnerable.

Limitations

This exploratory study has contributed to the understanding of school-related concerns for patients with psychiatric illness; however, limitations do exist. The study was limited by the inclusion of one hospital site that serves different regions with different kinds of school and community supports available post-discharge. While the sample size was sufficient for the proposed purpose, it was not large enough to explore differences in patient characteristics and outcomes by region. Age and gender were entered into the analysis; however, other third variable confounds or factors could be associated

with both school experiences and psychiatric symptoms that were not controlled in this analysis. The sample was predominantly female which is fairly representative, though due to the extra methodological procedures needed to access youth 13 years old or younger, this age group is under-represented (See Preyde et al., 2014 for a discussion on the difficulties in sampling children and age of consent in medicine versus research). Not all youth completed the full survey resulting in a fluctuating sample size from 156 to 161. Moreover, all of the variables were self-reported measures which may contribute to their inter-relationships. Finally, the surveys were completed within the hospital unit, and often within close proximity to the RA, thus social desirability may have affected the patients' responses.

In conclusion, the school-related issues were significantly associated with the severity of mental health problems of youth accessing in-patient psychiatric care. These patients reported very severe psychological and in particular, emotional difficulties. They reported considerable school avoidance and academic difficulty and were very low in cognitive engagement. Future research with youth accessing in-patient psychiatric care may further elucidate this relationship between psychiatric symptoms and school-related challenges, and provide direction for improving treatment, and discharge and transition services.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Research Ethics Clearance was provided by Grand River Hospital and the University of Guelph.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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