Evaluation of a Demystification Workshop for Adolescents with ADHD

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ABSTRACT

AN EVALUATION OF A DEMYSTIFICATION PROGRAM FOR ADOLESCENTS WITH ADHD

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The purpose of the present study was to evaluate the effectiveness of a demystification workshop for adolescents with Attention Deficit/Hyperactivity Disorder (ADHD). The goal of the workshop was to increase adolescents' knowledge of ADHD and enhance opinions of evidence-based treatments. Twenty-five grade seven to nine students participated in the study. Main findings showed that adolescents' knowledge of treatments for ADHD significantly increased and their opinions of pharmacological treatments were more favorable immediately following the workshop. Follow-up analyses revealed that gains in knowledge were maintained over a period of one to two weeks, while changes in opinions were not. Following the workshop, adolescents were able to identify (1) more environments wherein ADHD made it difficult for them to stay out of trouble, (2) a greater number of adults in their lives who are able to help them with their ADHD, and (3) more ways they can help themselves manage their ADHD symptoms. These findings were still evident at follow-up. Overall, most participants rated the workshop as a positive learning experience. The demystification workshop was an effective means of sharing information about ADHD with adolescents; however, more research is needed to determine how to maximize the amount of information acquired by participants and maintain gains over time.

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Introduction

For over 100 years scientists and practitioners have attempted to define and explain what the Diagnostic and Statistical Manual for Mental Disorders (4th Edition) now refers to as Attention-Deficit/Hyperactivity Disorder (ADHD) (Barkley, 2003). ADHD can be described as a neurobiological/developmental disorder, which manifests itself in developmentally inappropriate levels of inattention and/or impulsivity, and hyperactivity (American Psychiatric Association, 2000). The characteristics or symptoms associated with ADHD typically arise before the age of seven. In order for a diagnosis of ADHD to occur, symptoms must (1) be evident for six months or more, (2) occur across two or more settings (e.g., school and home) and (3) cause significant impairment in the child's everyday life (Moline & Frankenberger, 2001). Currently, three distinct subtypes of ADHD exist: ADHD predominantly inattentive (ADHD-I), ADHD predominantly hyperactive-impulsive (ADHD-HI), or ADHD combined subtype (ADHD-C). ADHD-C involves a combination of inattentive and hyperactive-impulsive symptoms. Studies examining the prevalence of ADHD in the United States indicate that between five and ten percent of all school-age children meet the diagnostic criteria for ADHD (APA, 2000). In Canada, it is estimated ADHD affects approximately half a million children and adolescents (Human Resource and Skills Development, 2002).

While most children with ADHD will exhibit common symptoms and characteristics, such as inattention, impulsivity, and hyperactivity, the impairments in their everyday lives will vary considerably. For instance, the presence of co-morbid conditions and symptom severity will each affect the child's experience of ADHD and his/her subsequent areas of impairment. This complicates the selection of intervention

strategies, since each child will present a unique set of needs that extend beyond the reduction of inattentive, hyperactive, and impulsive behaviours (Dupaul & Eckert, 1997).

As many as 80% of children with ADHD experience co-morbid conditions (Mash & Wolfe, 2002). Between 50% and 70% of clinic-referred children with ADHD also meet the criteria for Oppositional Defiant Disorder (ODD), 20-50% of children meet criteria for Conduct Disorder (CD), and upwards of 18% will be diagnosed with a tic disorder (Barkley, 1998; Peterson, Pine, Cohen, et al., 2001). Children with ADHD are also at risk for depression and/or anxiety problems (The MTA Cooperative Group, 2003). In addition to being at risk for developing co-morbid psychiatric disorders, children with ADHD typically exhibit impaired academic functioning. The majority of these children experience difficulties with school performance, especially with regard to low productivity. While many students with ADHD present with average or above average intelligence, as early as preschool the disorder appears to affect the acquisition of a variety of skills required to succeed academically (Barkley, Shelton, Crosswait, et al., 2002). Upwards of 53% of children with a diagnosis of ADHD meet the criteria for a learning disability (LD), when LD is defined as a significant discrepancy between intelligence and achievement (Lambert & Sandoval, 1980). Each co-morbid condition will affect the expression of ADHD symptoms, thereby complicating the selection of effective intervention strategies for many children with ADHD.

For years people have been plagued by misinformation surrounding the topic of ADHD. For instance, originally it was assumed that ADHD symptoms simply disappeared by adolescence. The disorder was most commonly seen in elementary school-aged males and therefore many people believed that symptoms diminished and even vanished somewhere between childhood and adulthood. It is now known that

children with ADHD often suffer from adjustment problems throughout adolescence and adulthood (Oltmanns, Neale, & Davison, 1999; Weiss & Hechtman, 1993; Willoughby, 2003). Adolescents with a diagnosis of ADHD are at increased risk for a number of negative life outcomes, such as severe difficulties with social interaction leading to peer rejection (O'Callaghan, Reitman, Northup, et al., 2003), increased interpersonal problems (Barkley, 1998), work difficulties, school drop out, academic underachievement (Barry, Lyman, & Klinger, 2002), and higher incidence of alcohol and substance use (Barkley, 1998; Weiss & Hechtman, 1993). Despite the mounting evidence pointing to the potential negative impact of ADHD on the lives of adolescents, a limited amount of research has been conducted with this population (Smith, Waschbusch, Willoughby, et al., 2000).

Although both pharmacological and psychosocial treatments have been proven effective in reducing a number of ADHD-related symptoms and impairments, many children and adolescents do not receive or adhere to these treatments. In a study by Bennett, Power, Rostain, et al. (1996), results showed that nearly one quarter of the families did not start recommended pharmacological treatments and approximately half of the families did not enrol in the recommended behaviour therapy. Some research has shown that parents' knowledge of ADHD may impact important decisions regarding treatment choices for their children and also treatment adherence (Corkum, Rimer, & Schachar, 1999; Monastra, 2005). These studies propose that parents who are knowledgeable about ADHD are more likely to enrol their children in evidence-based treatments when compared to parents who are less knowledgeable. Furthermore, parents who have been formally educated about the medical causes of ADHD, the biochemical action of medications, the lack of relationship between dietary habits and attention, and the educational rights of children with ADHD will be more likely to adhere to treatments

such as methylphenidate, even after a period of two years (Monastra, 2005). While this information is pertinent when discussing treatment for children with ADHD, the issue becomes more complex as children move into adolescence and begin to make independent choices related to treatments and educational needs.

To the researcher's knowledge, no studies exist that specifically examine adolescents' knowledge of ADHD or how their knowledge may impact choices regarding treatment selection and treatment adherence. Given what we know about the effects of increasing parental knowledge, it would be useful to examine adolescents' baseline knowledge of ADHD and whether providing them with information about the disorder would lead to a more thorough understanding of issues surrounding ADHD and more favourable opinions regarding evidence-based treatments. MacKay and Corkum (accepted for publication) conducted a study wherein 25 children (grades two to seven) attended a two-hour demystification workshop, which focused on evidence-based information about ADHD and its treatments. Results indicated that children had a significant increase in their knowledge of ADHD following the completion of the workshop, and they demonstrated more favourable opinions of medication and psychosocial interventions. In contrast, the children's opinions of alternative treatments, such as diet and massage therapy did not change.

As children progress into adolescence, they become increasingly independent and have additional opportunities to be involved in important decisions regarding their personal well-being. More research is needed to determine how to increase adolescents' knowledge of ADHD and surrounding issues in an effort to provide them with the information necessary to make informed choices with regard to treatment selection and adherence.

Literature Review and Research Rationale

ADHD in Adolescence

ADHD is currently seen as a chronic disorder, which typically persists beyond childhood, into adolescence and adulthood (Willoughby, 2003). It is estimated that approximately 50-80% of children who have been diagnosed with ADHD continue to experience symptoms in adolescence (Weiss & Hechtman, 1993). The majority of adolescents with a childhood history of ADHD will encounter more problems than their typically developing peers, including: increased academic and interpersonal problems, increased risk for failing to finish high school, higher incidence of automobile accidents, and elevated rates of criminal offending and psychoactive substance use (Weiss & Hechtman, 1993). In fact, it has been noted that these adolescents display moderate to severe impairments in every-day functioning even when ADHD symptoms do not reach clinical levels (Barkley, 1998).

Barkley (2004) suggests that ADHD symptoms change quantitatively from childhood to adolescence, and the manifestations of these symptoms also undergo change. He proposes that adolescents with ADHD experience many of the same symptoms as children; however, the severity and number of symptoms present may differ according to age. In a study by Nolan, Volpe, Sprafkin, et al. (1999) that investigated age, gender, and comorbidity differences in subtypes of ADHD, it was found that hyperactive/impulsive behaviours were more typical of younger children, whereas inattentive behaviours were more commonly seen in adolescents.

School presents several challenges for children with ADHD. Classrooms are structured environments wherein children are expected to understand and follow rules, develop and make use of organizational skills, sustain attention, control or manage

hyperactive/impulsive behaviours, and interact frequently with peers and teachers. Generally, in the school setting, children with ADHD will experience more difficulties when compared with their typically developing peers (LeFever, Villers, & Morrow, 2002; O'Callaghan et al., 2003). When adolescents enter high school these challenges increase exponentially. Students are: (1) supervised less, (2) provided with less structure and routine, (3) presented with higher demands on organizational skills, (4) exposed to more teachers and their teachers have far more students to manage, (5) teachers have less time to plan for and implement behavior programs and coordinating such plans with a number of teachers is difficult, and (6) teenagers engage in more risky behaviors (e.g., driving, sexual behaviors, substance use).

Adolescents with ADHD may be considered an at-risk population for a number of reasons; however, the majority of these problems would improve with treatment. Developmentally, adolescents are more prepared to take an active role in the selection and implementation of treatment plans. It would be useful to examine whether an increase in teens' involvement with treatment planning would boost their investment and interest in the treatment process.

Treating ADHD

Since ADHD is a chronic disorder, interventions or treatments are typically centred around managing symptoms, rather than curing them. Treatments may also focus on reducing impairments in life functioning that stem from the presence of ADHD symptoms and co-morbid conditions. Presently, the most frequently used treatments for ADHD are: (1) pharmacological interventions, and/or (2) behavioural/psychosocial interventions. CNS stimulants are the most commonly used pharmacological treatments for children with ADHD. Medications, such as methylphenidate (Ritalin®), are effective

in reducing a number of ADHD-related symptoms including inattention, hyperactivity, and impulsivity. Stimulant medications increase attention and concentration, compliance, hand-writing and fine motor skills, and social status. They decrease impulsivity, task-irrelevant activity level, and aggressiveness (Barkley, 1998).

The Multimodal Treatment Study for ADHD (MTA) is the largest randomized study to date examining the effectiveness and safety of treatments for children with a diagnosis of ADHD. Findings indicate that children who are administered carefully monitored medication management interventions will fare better than children who are exclusively receiving intensive behaviour interventions and children who are receiving routine community care including medication that perhaps is not well titrated (The MTA Cooperative Group, 1999). Ideally, children should receive a combination of pharmacological and behavioural interventions to treat their ADHD. Further findings from the MTA revealed that in some cases, children's daily functioning (academic performance and familial relations) only improved with a combination of pharmacological and behavioral interventions (Owens, Hinshaw, Arnold, et al., 2003).

While the results from the MTA provide a strong rationale for the use of pharmacological and behavioural approaches with children, very few studies have evaluated the effectiveness of these treatments with an adolescent population (Smith, Waschbusch, Willoughby, et al., 2000). A review of the literature by Smith, et al. (2000), found only 29 empirical studies focusing on adolescents with ADHD, including eight controlled studies of stimulant treatments for adolescents. In comparison, several dozen studies of this kind have been conducted with children. Smith et al.'s (2000) review involved examining the efficacy, safety, and practicality of treatments for adolescents with ADHD. An intervention is described as *well-established* if it was supported by (i)

two or more, well-conducted group-design studies completed by different research teams, or (ii) several well-conducted single-case study designs completed by independent investigators showing that the treatment is either superior to placebo or is at least as good as an existing well-established treatment in a study with sufficient statistical power. It was found that methylphenidate (MPH) is currently the only well-established treatment for adolescents with ADHD. Studies have demonstrated that MPH is effective, safe and practical for use with adolescents. Some other treatments, such as classroom-based individualized behaviour management plans and family interventions were identified as being *promising*; however, there is a dearth of data to support the use of these strategies with the adolescent population. More research is needed to evaluate the usefulness of such treatments. This is not to suggest that MPH is necessary or that behavioural interventions are ineffective; only that there is a need for more research before any conclusions can be drawn.

Despite the evidence suggesting that behavioural/psychosocial interventions and CNS stimulants such as MPH are effective in managing adolescents' ADHD symptoms, many adolescents do not receive or adhere to these treatments. One study states that 90% of children and adolescents with ADHD receive a prescription for medication to treat the disorder, and a mere 12-25% of these individuals regularly take the recommended medication (Jensen, Kettle, Roper, et al., 1999). This statistic is concerning since medication is only effective when it used and the benefits are most evident when usage is consistent. Adolescents in particular have been targeted as failing to adhere to ADHD treatment regimens (Kazdin, 1990). Several barriers to effective treatments have been identified in recent research.

Barriers to Effective Treatment of ADHD

A number of studies have explored the reasons for low rates of treatment utilization among families of children and adolescents with ADHD. Findings suggest several barriers to effective treatment, including: dissatisfaction with diagnostic process limited to brief observation, interview, and/or behaviour rating scales; fear of stimulant medication; lack of medication response within the first month; development of side-effects; lack of understanding of the reasons stimulants were being prescribed for a child; insufficient clinical response; stigma associated with stimulant use; and demographics (e.g., race, family composition, socioeconomic status) (Monastra, 2005; Stine, 1994). Parental knowledge is a factor that has been shown to affect the enrolment in treatments and also treatment adherence in families of children with ADHD. A study by Corkum, Rimer and Schachar (1999) examined the relationship between parents' knowledge of ADHD and opinions of treatment and their impact on enrolment in and adherence to both pharmacological and nonpharmacological interventions for children with ADHD. Results indicated that those parents who had a higher level of knowledge of ADHD were more likely to enrol in both pharmacological and nonpharmacological treatments.

Monastra (2005) identified a number of factors that act as barriers to effective treatment and also designed a program to counter these barriers in an effort to increase compliance and adherence to medical treatments for children and adolescents with ADHD. It was found that a combination of an intervention program consisting of: a comprehensive evaluation process (that involved neuropsychological and neurophysiological tests of attention, and medical screening for other health problems associated with inattention and hyperactivity) and a parent education program explaining the medical causes of ADHD, the biochemical action of medications, the relationship

between dietary habits and attention, and the educational rights of children with ADHD resulted in 95% of the sample complying with medical recommendations, initiating pharmacological treatment, and continuing medication utilization for a period of two years. These studies present a number of practical implications for individuals treating children and adolescents with ADHD. Parent education appears to reduce parent fears and resolve misconceptions regarding interventions for ADHD, thereby increasing rates of enrolment and adherence. While increasing parent knowledge in combination with a comprehensive evaluation and diagnosis process has been shown to effectively enhance treatment adherence in children, adolescence is a time of increasing independence and therefore they are not necessarily influenced by their parents' attitudes to the extent that they were as children. This creates an added barrier to effective treatment delivery for this population.

Adolescent Treatment Adherence

When children make the transition into adolescence it becomes increasingly difficult to ensure treatment compliance. As adolescents become more independent and their parents have less influence over decisions regarding treatment, new barriers to effective treatment may surface. Compared to other age-groups, adolescents have been identified as a high-risk population for non- or partial treatment adherence and reasons for this are often unpredictable (Ghaziuddin, King, Hovey, et al., 1999). Research examining treatment adherence among adolescents with chronic illnesses and psychiatric illnesses has supported this finding (Coletti, Leigh, Gallelli, et al., 2005; Shaw, Palmer, Hyte, et al., 2001).

Often teens are misinformed or ignorant about what constitutes appropriate diagnosis and treatment of ADHD and this may play a role in the high rates of non- or

partial treatment adherence among this population. A study by Bastiaens (1995) focused on educating 30 adolescent inpatients with mood or other psychiatric disorders and their parents on issues surrounding medication use. It was found that neither the parents' knowledge nor attitudes correlated with the adolescents' treatment compliance. On the other hand, adolescents' attitudes toward their pharmacotherapy correlated highly with their postdischarge compliance. Adolescents were not relying on their parents to make decisions regarding treatment. Barkley (2004) states that it would be fair to say that most teens are not willing to invest themselves in treatments based on their parents' suggestions and these teens do not necessarily feel that they need help. To the researcher's knowledge, no studies exist that examine adolescents' knowledge of and attitudes toward ADHD and/or how knowledge and attitudes relate to patterns of treatment selection and adherence. Given that this population is at an elevated risk for negative life-outcomes, which persist into adulthood, more research is needed to determine whether increasing adolescent knowledge and resolving misconceptions connected with ADHD may influence adolescents' opinions of the disorder and evidence-based treatments, and ultimately affect adolescent treatment selection and adherence.

Why Educate Adolescents on Issues Surrounding ADHD?

There are a number of reasons why adolescents with ADHD would benefit from an education program aimed at increasing their knowledge of the disorder and of evidence-based treatments, which have been recognized as effective in managing ADHD symptoms. Firstly, adolescents with ADHD are at risk for a whole host of negative life outcomes. As adolescents move toward becoming independent members of society, their parents have less control over the choices their children are making. Adolescents are presented with more opportunities to take responsibility for their own decision-making,

including the decision regarding whether or not to adhere to ADHD treatment programs. For this reason, it would be useful to provide adolescents with the information necessary to make informed decisions with regard to treatment selection and adherence. Secondly, adolescents may be misinformed about issues surrounding ADHD and these misconceptions may affect the individual's opinions regarding these issues. Research shows that both parents and teachers often lack accurate knowledge related to ADHD, particularly with regard to treatment (West, Taylor, Houghton, et al., 2005). This means that children may be misinformed from a young age if they go to parents or teachers with questions and/or concerns. Furthermore, adolescents are plagued by misinformation from the media. Lyrics to popular songs, television shows, and magazine ads convey images of ADHD that do not necessarily provide an accurate representation of the disorder. An education program would aim to resolve such misconceptions and provide the adolescent with evidence-based information.

Also, self-advocacy becomes particularly important in adolescence. For instance, when a student transitions into high school, he/she may have a number of teachers who do not know him/her and who have to contend with large numbers of students to teach. Without self-advocacy skills, an adolescent with ADHD may not get the attention and adaptations he/she requires in order to be successful academically. In a school setting, adolescents must be aware of: (1) when to ask for help, (2) who to ask for help, and (3) how to ask for help, to ensure the provision of such valuable supports. In order for an individual to develop such self-advocacy skills, he/she must first acquire a sound knowledge-base regarding the disorder and related issues.

How do we Educate Adolescents on Issues Surrounding ADHD?

Demystification refers to the act of putting into plain words what an individual's strengths and weaknesses are, without the use of judgment or labels (Levine, 1999). The aim of demystification is to ease guilt, resolve misconceptions or myths, minimize blaming tendencies, and provide the individual and his/her family with information regarding his/her ability to affect future outcomes (Levine, 1999). Demystification appears to differ from a psycho-educational group in the sense that rather than simply learning about a particular topic, individuals are learning about their own specific strengths and needs in relation to the topic. For example, a demystification session on ADHD would encourage children to explore how ADHD affects their own lives specifically and how they can use their individual strengths to compensate for areas of weakness. Children should leave a demystification session with feelings of confidence and hope for the future. Research has demonstrated that efforts to demystify parents about ADHD, in combination with a comprehensive ADHD evaluation, have lead to remarkable increases in treatment enrolment and adherence (Monastra, 2005). MacKay and Corkum (accepted for publication) found that children with a diagnosis of ADHD who attended a demystification workshop showed significant gains in knowledge regarding ADHD following their participation in the two-hour session. The majority of children reported that they enjoyed the experience and that they felt they learned from the workshop.

The Present Study

The purpose of this study was to evaluate a demystification workshop for adolescents with a diagnosis of ADHD. Adolescents in grades seven to nine were asked to participate in a two-hour workshop which addressed issues regarding the

characteristics of ADHD, evidence-based treatments for ADHD, strengths and weaknesses associated with the disorder, the connection between ADHD and the brain, how ADHD in adolescence differs from childhood, what to expect in the future, and important steps to self-advocacy, such as knowing when, who, and how to ask for special accommodations at school.

The current study is modeled after a study by MacKay and Corkum (accepted for publication), which examined the effectiveness of a demystification program for late elementary school-aged children with ADHD. For the present study, the existing questionnaires and manual for the children's program were adapted for an adolescent population (see Appendix A).

Hypotheses

1) *Knowledge of ADHD*- Adolescents' knowledge will be measured at baseline and following the intervention. There will be an increase in adolescents' knowledge from baseline to post intervention.
2) *Opinions of Treatments*- Adolescents' opinions will be measured at baseline and post intervention. Following the intervention, participants will have more favourable opinions of evidence-based interventions and therefore they will have more accurate opinions regarding medical and psychosocial interventions.
3) *Impact*- Participants will be better able to recognize the impact of the disorder on their lives.
4) *Helping Adults*- Participants will be better able to recognize the number of adults who are able to help them cope with the disorder.

5) *Symptom Management*- Participants will expand their knowledge regarding strategies used to manage ADHD symptoms.

6) *Follow-up*- Changes (as seen above) will be maintained over a period of one to two weeks following the workshop.

Method

Participants

Twenty-seven adolescents (grades seven to nine) were originally recruited to participate in the present study (24 males and three females). Of the 27 adolescents recruited, 25 participated and two students were absent from school on the day the workshop was conducted. Of the 25 adolescents who participated, one adolescent chose to leave the workshop prior to completion and one adolescent's questionnaires were omitted due to acquiescent rating styles (i.e., answered all questions with the same response), resulting in a final sample of 23 adolescents. A total of 21 males and two females participated in the workshops. Of the 23 participants, eight adolescents were attending grade seven, nine were attending grade eight, and six were attending grade nine.

The sample was derived from families living in Nova Scotia, Canada. The participants ranged in age from 152 months (12 years, 8 months) to 200 months (16 years, 8 months), with a mean age of 163.23 months (13 years, 7 months). Adolescents were eligible to participate in the study if they were currently attending grades seven to nine and had been previously diagnosed with one of the three subtypes of Attention-Deficit/Hyperactivity Disorder (ADHD). Documentation of the diagnosis was not mandatory; however, the school and/or the school psychologist must have been notified of the diagnosis (i.e., adolescents with *suspected* ADHD were not allowed to participate

in the study). Adolescents were excluded from the study if the staff at their schools felt that the adolescent did not possess the skills necessary for participation in a group intervention (i.e., high level of aggression), or if the adolescent had another mental health diagnosis that was primary to their diagnosis of ADHD (i.e., Autism) and caused impairments at school that were primary to their ADHD symptoms.

All 23 adolescents who completed the workshop had a diagnosis of ADHD and of these adolescents ten were currently being treated with stimulant medication (i.e., Ritalin, Dexedrine). Thirteen adolescents were diagnosed with ADHD by a psychiatrist, eight by a psychologist, and two by a paediatrician (data missing for one participant). Some participants were also diagnosed with a comorbid disorder(s) including one student with Oppositional defiant Disorder (ODD), one who had been diagnosed with Conduct Disorder (CD), one with Depression, two with Fetal Alcohol Syndrome (FAS), one with Aspergers' Syndrome, and one with an unidentified "other" medical condition. Although one student had a diagnosis that was primary to a diagnosis of ADHD (Aspergers' Syndrome), the staff at his/her school felt that the majority of the impairments this adolescent exhibited at school were a result of his/her ADHD diagnosis.

The parents each gave verbal consent and signed the Research Consent Form prior to their adolescent's involvement in the study. Each adolescent met with the researcher individually prior to the ADHD workshop to sign a consent form. The form was read aloud to each adolescent and he/she was encouraged to ask questions in order to clarify the information provided. In the case that adolescents did not have any questions following the explanation of the consent form, they were provided with examples of questions that other adolescents/parents had asked about the study.

Measures

Three questionnaires were used for the present study.

Demographic Questionnaire (MacKay & Corkum, unpublished). The parent/guardian was asked to complete this questionnaire, which was used to gather descriptive information, such as the child's date of birth, family composition, parental occupation status and level of education, the child's history of mental health disorders (e.g., ADHD, anxiety, depression, etc.), and current medication use (e.g., stimulant medication, anti-depressants, etc.). This information was needed to establish the characteristics of the population (i.e., socioeconomic status) and also to determine, a) whether the child had been diagnosed with ADHD or any other mental health disorder, b) the presence of a mental health disorder that is primary to ADHD (e.g., Autism), and c) any medications that may affect the child's behaviour/symptoms and/or opinions of treatment for ADHD (e.g., Ritalin/Concerta, Dexedrine, Stretarra). There are a total of 14 questions on this questionnaire (see Appendix B). This questionnaire has been used in past research with no concerns expressed by parents.

Teacher Perception of Self-Advocacy Skills Questionnaire. This questionnaire was designed by the researcher and Dr. Corkum and is made up of six questions, which examine the teachers' perceptions of the adolescent's self-advocacy skills (e.g., "Does this student ask for help when he/she is experiencing difficulty?" "Does this student ask for extra accommodations with assignments?" and "How often does this student advocate in an effective manner for his/her individual needs?"). In addition to the six questions, a space was provided for teachers to include additional, qualitative comments regarding the adolescents' self-advocacy skills. The teachers of the adolescents participating in the study were asked to complete this questionnaire on two separate occasions (prior to the

workshop and one to two weeks after the workshop). All quantitative questions were answered on a four-point likert scale ranging from never to always (see Appendix C).

Adolescent ADHD Knowledge & Opinions Questionnaire (revised from MacKay & Corkum, unpublished). This questionnaire was modeled after the ADHD Knowledge and Opinion Scale (AKOS) (Rosatin, Power, & Atkins, 1993) which was designed to evaluate the parent-attitudes, knowledge of, and opinions regarding ADHD across a variety of settings. The AKOS was adapted by MacKay and Corkum (unpublished) to measure children's knowledge and attitudes surrounding ADHD before and after a demystification workshop. For the purpose of this study, the Children's Knowledge & Opinions Questionnaire was adapted to assess adolescents' knowledge of ADHD and was used on three different occasions (pre-intervention, post intervention, and follow-up after one to two weeks).

The instrument consists of 25 true or false questions that measure the participants' knowledge of ADHD in the following areas: ADHD characteristics (questions 1, 3, 4, 5, 15, 15), developmental course (questions 7, 20, 21, 22), etiology (questions 6, 11, 13, 17, 25), treatment (questions 2, 8, 10, 18, 24), and issues related to self-advocacy (questions 9, 12, 16, 19, 23). These 25 questions included 15 from the original version and ten, which were added and reflect adolescent issues (questions 7, 10, 12, 16, 17, 19, 20, 21, 22, 23). The second section has 15 questions that measure the adolescent's opinion of medication, psychosocial interventions, and alternative treatments for the management of ADHD symptoms. All 15 questions were included in the original version of the questionnaire. These questions are answered on a four-point likert scale, ranging from "strongly disagree" to "strongly agree". The third section is made up of five questions, included in the original questionnaire, that assess the participant's perception of the

impact that ADHD has on his/her life across various settings. The participant was asked to check off any boxes that apply to him/her for this section (see Appendix D).

The adolescents were asked to complete the scale: 1) prior to the workshop, 2) immediately following the workshop, and 3) one to two weeks after the workshop took place. The questionnaire, which was administered on two occasions after the workshop, included two additional questions regarding how much the participant enjoyed the workshop and how much he/she felt he/she learned.

Procedure

Six schools in Nova Scotia, Canada were approached to participate in the current study. Principals of these schools were given a Letter of Introduction, explaining the purpose of the study and what would be required of participants. All six schools expressed an interest in the study and agreed to participate. Principals were asked to provide the researcher with a list of names of students who met the inclusionary criteria for the study. All parents/guardians of these students were then contacted by telephone by a school psychologist with the school board (and co-facilitator of demystification workshops). Once the school psychologist informed the parent/guardian about the study and what would be required of their children (i.e., participating in a two-hour workshop with a group of approximate four to eight other students with ADHD from the adolescent's school), they were asked to indicate whether they were interested in participating. If the parent/guardian expressed an interest in the study, he/she was asked to grant verbal consent for the researcher to speak with the adolescent at school. For the present study, all 27 parents/guardians expressed an interest in the workshop. The adolescent was then called down to the office to speak privately with the researcher about the purpose and content of the workshop. Once the adolescent had been informed about the study, he/she

had the opportunity to sign the adolescent consent form (see Appendix E) if he/she chose to do so. All 27 adolescents approached by the researcher agreed to participate in the study. A second consent form for the parent/guardian (see Appendix F) was sent home with the adolescent along with the *Demographic Questionnaire* and parents/guardians were asked to complete each form and return it to the school.

Once consent was obtained, the researcher met with the principal or designated school staff member to arrange a date, time, and location for the workshop to take place. All groups were co-facilitated by the researcher and the school psychologist for the school. The two-hour workshop consisted of seven segments, each focusing on unique aspects of ADHD. A variety of media were used to convey this information including visual presentations, hands-on tools, interactive discussion, and multi-media presentations.

On the day of the workshop, the co-facilitators (the researcher and the school psychologist) met with the participants in a designated space 30 minutes prior to the beginning of the group. At this time, the adolescents were asked to complete the *Adolescent ADHD Knowledge & Opinions Questionnaire* for the first time. The adolescents were asked to spread out in the work-space to avoid having participants copy each others' answers. The group facilitators provided a generic set of instructions to participants and also read each question out loud for the group. The facilitators were cautious not to place any emphasis on correct responses in an effort to avoid influencing participants' response choices. Participants were reminded to work independently. This questionnaire assessed the participants' knowledge and opinions of ADHD prior to the workshop.

Adolescents then took part in a two-hour workshop, consisting of seven components, each focusing on critical issues related to ADHD. Topics included: (a) what is ADHD and how does it impact our lives? (b) what causes ADHD? (c) treatments for ADHD, (d) creating and graphing our own learning profiles, and (e) learning self-advocacy skills. Information was conveyed through a variety of mediums. A total of six workshops were conducted and they all took place between June 5th and June 8th, 2006.

Each group was asked to complete the questionnaire a second time immediately following the workshop (post-workshop questionnaire) utilizing similar procedures as the pre-workshop administration. In order to examine how much of the information imparted during the workshop was retained, adolescents filled out the questionnaire again one to two weeks following the completion of the workshop. At the end of the workshop, each adolescent was given a workbook to take home, which included an information section for teens with ADHD and also for parents of teens with ADHD. The workbook also contained the adolescent's worksheets, a profile of his/her unique learning strengths and challenges, and a list of helpful resources for teens and parents regarding ADHD.

Following each of the workshops the facilitators wrote field notes to document (a) which aspects of the workshop seemed to capture the adolescents' attention the most/least, (b) what types of questions the participants asked, (c) whether the participants had any concerns that were not addressed in the workshop, (d) whether the breaks in the regular school schedule (i.e., recess, lunch break) affected the flow of the workshop, and (e) what could be changed in the future based on the observations made with each group

All aspects of this study were approved by the Mount Saint Vincent University Research Ethics Board and approved by the school board.

Data Analysis

All data was analyzed using the Statistical Package for Social Sciences, version 14.0. The results of the study are presented in three sections. The first section is made up of the background information that was obtained from the *Demographic Questionnaire* completed by the parent/guardian. Descriptive statistics were used to analyze this data. The second group of analyses evaluated the initial effectiveness of the workshop. Paired samples t-tests were conducted to compare the adolescents' knowledge and opinions of ADHD before and after the workshop. The third group of analyses evaluated gains in knowledge at follow-up (one to two weeks following the completion of the workshop). Paired samples t-tests were conducted to examine differences in measures from baseline to follow-up and also from post intervention to follow-up. Repeated measures ANOVAs were not conducted across all three assessment periods since data was limited to ten participants at follow-up thus severely reducing the sample size.

Results

Sample Characteristics (see Table 1)

Of the 23 adolescents (21 males, 2 females) whose data was included in this study, 22 parents/guardians completed and returned the *Demographic Questionnaire*. Of these informants, 15 were biological mothers, two were biological fathers, one was a foster mother, two were grandmothers, one was an aunt, and one was a staff member of a residential centre for youth. The family composition was made up of 13 two-parent families consisting of both biological parents, one single parent, three biological parents living with common-law partners, one biological parent with a step mother/father, two adolescents lived with their grandparents, one lived with his/her aunt and uncle, and one adolescent was temporarily living in a group-home setting. The level of education as

indicated by the participating parents/guardians who completed the questionnaires (two informants did not include this information) consisted of eight individuals who had completed less than high school, three who received a high school diploma, three who had some community college experience, and seven who had completed a community college diploma. None of the informants had previously attended university. Sixteen of the participating parents/guardians indicated that they worked outside the home, while five were stay at home parents. The residential care worker did not complete this question.

Treatment Evaluation

Knowledge of ADHD and surrounding issues. Results revealed that, on average, adolescents responded correctly to 72.4 percent of the knowledge-related questions prior to the demystification workshop. The same set of questions was administered immediately following the workshop, and despite an increase in the average number of correct responses (80.8%), the gain from pre-test to post-test was not significant. Paired-samples t-tests were conducted to determine whether there was a significant increase in the adolescents' knowledge of and opinions surrounding ADHD from the pre-intervention to post-intervention assessments (see Table 2). Results of these analyses revealed that adolescents did not demonstrate a significant increase in their overall knowledge of ADHD from pre-test to post-test, t (23)=-1.59, p = .13; M*(pre)*=18.78, M*(post)*=20.00. When knowledge was broken down into five distinct categories (characteristics, treatment, developmental course, etiology, and self-advocacy), adolescents' demonstrated a significant increase in knowledge related to treatments for ADHD, t (23)=-2.64, p= .02; M*(pre)*=3.74, M*(post)*=4.26. A trend toward an increase in knowledge regarding the characteristics of ADHD was noted t (23)=-1.84, p=.08;

M*(pre)*=3.83, M*(post)*=4.39. There was no indication of an increase in knowledge for the developmental course *t* (23)= .72, *p*= .48; M*(pre)*=2.91, M*(post)*=2.78, etiology *t* (23)= -.86, *p*= .40; M*(pre)*=4.00, M*(post)*=4.22, and self-advocacy *t* (23)= -.214, *p*= .83; M*(pre)*=4.30, M*(post)*=4.35 categories.

Opinions of treatments for ADHD. Adolescents' opinions surrounding the use of medication to treat ADHD became more positive as a result of the intervention, *t* (23)= -4.11, *p*= .00; M*(pre)*=16.35, M*(post)*=18.30. Adolescents' did not demonstrate a significant increase in favourable opinions of behavioural/psychosocial treatments *t* (23)=-.56, *p*= .58; M*(pre)*=18.87, M*(post)*=19.17, or opinions of alternative treatments for ADHD, *t* (23)=.62, *p*= .54; M*(pre)*=5.65, M*(post)*=5.39, from pre-intervention to post-intervention.

Identifying when/who to ask for help. Adolescents were unable to identify a greater number of ways that ADHD impacts their lives at the post-intervention assessment *t*(23)=-.35, *p*=.41, *M(pre)*=4.96, M*(post)*=5.35. At the post-intervention assessment, participants identified a significantly greater number of adults in their lives who are able to help them cope with their ADHD, *t* (23)=-4.10, *p*=.00; M*(pre)*=2.52, M*(post)*=3.95. Adolescents also recognized significantly more ways they are able to help themselves manage their ADHD symptoms on their own *t* (23)=-2.12, *p*=.05; M*(pre)*=1.86, M*(post)*=2.29, at the post-intervention assessment (see Table 3).

Follow-up. One to two weeks following the completion of the workshop, one of the facilitators (School Psychologist) visited each of the six schools to administer the final *Adolescent ADHD Knowledge and Opinions Questionnaires*. Although all six schools were approached, it was an exam week when the facilitator visited and therefore only 11 participants were present on the days that the follow-up questionnaires were

administered. All 11 participants completed the questionnaires, however, one of the participant's data was not included since his/her pre and post intervention questionnaires had been omitted as a result of aquiescent rating styles.

A *t-test* analysis was conducted to examine whether changes in knowledge and opinions were maintained over a period of one to two weeks. Only the ten participants who had successfully completed the *Adolescent ADHD Knowledge and Opinions Questionnaire* on all three occasions were included in these analyses. Results revealed that there was a trend toward maintaining gains in knowledge regarding treatments for ADHD t (9)=1.91, p= .09; M*(post)*=4.30, M*(follow-up)*=3.60. No additional gains in knowledge were identified from post-test to follow-up, nor was there a significant loss of knowledge (see Table 3).

At follow-up, opinions regarding pharmacological treatments for ADHD had decreased significantly, t (9)= 5.37, p=.00; M*(post)*=18.90, M*(follow-up)*=14.00. Opinions of behavioural/psychosocial and alternative treatments remained unchanged from post-test to follow-up (see Table 3).

Gains related to identifying greater numbers of adults who are able to help adolescents cope with their ADHD, t (8)=1.94, p=.08; M*(post)*=4.67, M*(follow-up)*=3.89, and identifying ways to manage their own ADHD, t (9)=1.54, p=.10; M*(post)*=2.19, M*(post)*=1.96, were still evident at follow-up. A trend toward an increase in identifying more ways ADHD impacts adolescents' lives was noted from post-intervention to follow-up t (9)=-1.88, p=.09; M*(post)*=5.10, M*(follow-up)*=7.10.

Workshop satisfaction. Two additional questions were added to the *Adolescents ADHD Knowledge and Opinions Questionnaires* that were completed post-intervention. These questions assessed participants' satisfaction with the workshop as well as how

much they felt they learned as a result of the workshop. Both questions embodied a likert scale format. Adolescents' satisfaction with the workshop was tallied on the post-workshop questionnaires and results indicated that 20% (n=5) said they liked the workshop "a lot", 48% (n=12) said they "liked it", 20% (n=5) indicated that they were "neutral", and 4% (n=1) "did not like" the workshop. When asked to rate how much they learned from the workshop, 28% (n=7) felt that they learned "a lot", 40% (n=10) felt they "learned some things", and 24% (n=6) indicated that they were "neutral". No one felt that they "didn't learn" from the workshop.

Field note analyses. Field notes were recorded immediately following each demystification workshop in an effort to gain insight as to which aspects of the workshop captured adolescents' attention most/least, the types of questions and concerns that were raised by participants during the workshops, and the general flow of the workshops. In total, six workshops were conducted at six separate schools. The number of participants in each workshop varied from two to six. Field notes were analyzed initially by carefully examining the notes written by the facilitator from each of the six sessions and identifying recurring themes (e.g., feedback regarding the flow/functioning of workshops, feedback regarding the content of the workshops). Once general themes had been identified, the researcher focused on extracting the specific features of each theme that surfaced in more than one of the groups (e.g., within the content theme, adolescents in all groups appeared to prefer the hands-on learning profile activity to the fill-in-the-blank paper and pencil format activities). Once commonalities between groups were identified and labelled, the researcher attempted to use specific quotes in an effort to further capture and describe the adolescents' experiences of the group.

i. Feedback regarding group functioning. An analysis of the field notes recorded after each group indicated that five of the six workshops appeared to run smoothly, without any signs of behavioural concerns. Generally, participants appeared to enjoy the workshop and many students commented that they felt the information presented in the group would be "useful" to them, particularly as they enter into high school. One of the six groups included five students, two of whom were unable to maintain focus during the workshop. These adolescents complained about attending the workshop and refused to read through questionnaires and worksheets throughout the information session. Unfortunately these students exhibited many inappropriate behaviours during the first half of the workshop and a significant amount of time was spent redirecting their attention and attempting to regain focus within the group. After the break, both students chose to leave the group, although one returned approximately half an hour later. The flow of this particular group was significantly affected by these two students, which made it difficult to effectively deliver the demystification program. Data from the two resistant participants was not included in this study. Data from all other participants was included.

ii. Feedback regarding workshop content. Analyses of the field notes taken after each workshop revealed that participants appeared to enjoy the hands-on activities, such as creating their own unique learning profiles. Most adolescents were eager to participate in this activity and also to share their findings with the group. Some adolescents requested additional time to analyze how their learning profiles affect their academic performance as well as their routine daily functioning. Several groups also made comments suggesting that they enjoyed the Spark-top videos regarding the characteristics of ADHD and self-advocacy. This multi-media component appeared to capture adolescents' attention and offer a break from information being presented in a lecture

format. Conversely, many of the groups complained about the amount of paperwork completed during the workshops, particularly with regard to the length of the *Adolescent ADHD Knowledge & Opinions Questionnaire*, which they were asked to complete on three separate occasions. Participants appeared to be least attentive during the lecture-format segment of the workshop (second half of the first hour).

Participants were encouraged to ask questions and raise concerns during the workshops. Several themes arose out of questions and concerns raised by adolescents from all schools. The first theme that was identified centers around safety of medications for ADHD. Some questions that were asked included: "Is it true that Ritalin can make you crazy?" and "Can you overdose on ADHD pills?" In a number of cases, these questions lead into another theme regarding ADHD medication and risky behaviours. Many adolescents had questions about the consequences of combining recreational drugs/alcohol with medication for ADHD (e.g. "What would happen if I was drunk when I took my Dexedrine?" and "Is it true that you can die if you mix [marijuana] with Ritalin?") The third and final theme that was identified involves concerns in relation to approaching school staff (e.g., teachers, principals, school program planning teams). A number of students expressed some concern as to whether teachers understand ADHD and would be willing to provide accommodations for students with the disorder (e.g. "I've never had a teacher who would let me get up during class. I don't think any teachers in my school would let me take breaks during school time" and "…teachers just think that ADHD means bad.")

iii. Directions for future research. Some groups raised additional issues that are worthwhile to mention for development of the intervention and resulting research. First, it was suggested by one adolescent that the ADHD workshops be run weekly, bi-weekly, or

monthly in an effort to provide on-going consultation in case issues arise and students are unsure as to how they should respond. Second, some adolescents indicated that they felt it would be useful for the teen to approach the School Program Planning Team in an effort to make connections with adults who are able to help them with ADHD-related challenges; however, they felt they would be more comfortable if they had the support of someone who understood ADHD (such as one of the co-facilitators of the workshops).

Self-Advocacy as reported by Teachers. The *Teacher Perception of Self-Advocacy Skills* questionnaire was administered in order to measure adolescents' self-advocacy behaviours on two occasions (prior to the workshop and also one to two weeks following the completion of the demystification workshop). All six schools were given questionnaires to be completed by one teacher of each adolescent participating in the workshop. Many teachers did not receive the questionnaires until after the workshop took place, and therefore a large number of questionnaires were administered during exams time. This was a very busy time for teachers and this could have contributed to low response rates. In addition to the poor timing, two schools did not distribute the questionnaires at all. Overall, the return rate was extremely low and a mere nine teachers returned both of the *Teacher Perception of Self-Advocacy Skills Questionnaires*. In some cases it was difficult to determine whether the teachers had completed one questionnaire prior to the workshop since several of their teacher consent forms (which were supposed to be signed prior to the completion of the questionnaire) were dated after the workshops had taken place. One teacher who returned the questionnaires was commenting on a student who did not participate in the workshop because he/she was absent on the day the workshop took place and therefore his/her questionnaire could not be included. A total of

eight questionnaires were returned to the researcher and therefore no analyses were conducted with this data given the low response rate.

Discussion

The goal of the present study was to evaluate the effectiveness of a demystification workshop for adolescents with ADHD. In order to determine whether adolescents' knowledge and opinions regarding ADHD and related issues changed as a result of the workshop and whether these changes were retained, adolescents' knowledge of and opinions surrounding ADHD were measured on three separate occasions: (1) prior to the workshop, (2) immediately following the workshop, and (3) one to two weeks after the workshop was completed. In addition, teachers were asked to complete a brief questionnaire, which measured the adolescents' self-advocacy skills. Teachers were asked to complete this questionnaire prior to the demystification workshop and again one to two weeks following the workshop. The purpose of the teacher questionnaire was to examine whether changes in adolescents' knowledge and opinions around self-advocacy resulted in behavioural changes (e.g., improved self-advocacy skills). The current study was adapted from a study by MacKay and Corkum (in press), which evaluated a demystification workshop for children with ADHD.

Hypotheses for this study were partially supported. In order to determine adolescents' baseline knowledge of ADHD and related issues, participants were asked to complete a series of questions, covering five distinct areas (characteristics of ADHD, treatments for ADHD, etiology, developmental course, and opportunities for self-advocacy). It was found that adolescents did not demonstrate a significant increase in their overall knowledge of ADHD and related issues from pre-test to post-intervention. It

should be noted, however, that adolescents did respond correctly to more questions at post-intervention (80.8 percent of questions versus 72.4 percent at pre-test) and that results may have been influenced by ceiling effects in the sense that adolescents' knowledge of ADHD, based on this measure, was relatively high prior to participating in the ADHD demystification workshop. This is an intriguing finding in the sense that adolescents' baseline knowledge was higher than expected. Reasons for this are unclear, however, many students indicated that they had been educated about ADHD when the diagnosis was made. Also, since the questionnaire was adapted from a children's version, it may be that questions were overly simple for this population. Finally, all questions regarding adolescents' knowledge were completed in a true/false format. In the future, it may be useful to change the format to multiple-choice in an effort to draw a more accurate measure of adolescents' knowledge of ADHD and related issues. This would likely produce a more accurate measure of adolescent knowledge since the probability of choosing the correct answer by chance would be reduced.

Although the adolescents did not demonstrate a significant increase in their overall knowledge of ADHD, when each of the five categories was examined separately, a significant increase in knowledge related to treatments for ADHD was evident. A trend toward an increase in knowledge regarding the characteristics of ADHD was also noted. Gains in these specific areas may be accounted for by the fact that the workshop placed a strong emphasis on treatments for ADHD and the characteristics of ADHD. Moreover, adolescents had the opportunity to partake in interactive activities during the workshop that covered each of these areas. In the future, it would be beneficial to conduct a longer workshop (broken down over multiple sessions) so that equal time can be spent on each

of the five domains (treatments, characteristics, etiology, developmental course, self-advocacy).

With regard to opinions surrounding treatments for ADHD, adolescents demonstrated more favourable opinions of pharmacological interventions for ADHD following the demystification workshop, although opinions of psychosocial interventions (such as parent training and school-based interventions) and alternative treatments (such as diet and massage therapy) remained unchanged. This is an interesting finding given that the workshop focused on providing the adolescents with information about a variety of evidence-based treatments, including both pharmacological and psychosocial/behavioural interventions. It is possible that many of these adolescents have had negative experiences at school with teachers and/or support staff and therefore do not believe that psychosocial treatments such as school-based interventions would be helpful for managing their ADHD symptoms. Many participants shared experiences that suggest they do not feel that their disorder is understood by parents and/or teachers, which may affect their opinions about psychosocial interventions.

Immediately following the demystification workshop, adolescents were able to identify significantly more adults in their lives who are able to help them manage their ADHD symptoms and a greater number of ways they can help themselves manage their own ADHD symptoms. This is an important finding since it shows that adolescents are building a sense of awareness as to which environments may be particularly challenging for them and the individuals that may be able to help them in those specific situations. In particular, adolescents were able to identify more helping adults beyond their parents and teachers (i.e., school psychologists, guidance counsellors, and resource teachers). These

findings are particularly relevant for this population given that they will be expected to seek out help independently as they enter high school and also into adulthood.

In order to determine whether changes in adolescents' knowledge and opinions regarding ADHD were maintained over a period of one to two weeks, a series of *t-tests* were conducted. A total of ten follow-up questionnaires were completed. Analyses were conducted based on these ten subjects. Results showed that initial gains in knowledge regarding treatments for ADHD and characteristics of ADHD were maintained over a period of one to two weeks.

With regard to opinions of treatments for ADHD, more favourable opinions toward pharmacological interventions that were seen immediately following the workshop were not maintained over a period of one to two weeks. This demonstrates a need for on-going consultation with this particular population. Since adolescents' opinions of pharmacological treatments for ADHD did change immediately following the workshop, it is evident that they are listening to and learning from the people around them. Adolescents may also learn from other people in their lives (i.e., parents, teachers, peers, and the media) and therefore it may be useful to offer an opportunity for on-going discussion regarding what they have heard about ADHD and treatments for the disorder and what has actually been supported by scientific evidence. It is also possible that initial shifts in opinion were a result of demand characteristics (facilitators unknowingly influencing adolescents' ratings) and/or adolescents showing what they had learned from the workshop rather than expressing their personal opinions. Further research is needed to examine how adolescents' opinions of/attitudes surrounding ADHD are formed.

At follow-up, gains related to identifying a greater number of adults who are able to help adolescents cope with their ADHD symptoms and identifying more ways to help

adolescents manage their own ADHD were still evident. Also, a trend toward an increase in identifying the number of ways ADHD impacts adolescents' lives was noted. This finding is intriguing since this trend was not apparent immediately following the demystification workshop, which suggests that adolescents became more aware of how ADHD impacts their lives from the time the workshop ended until follow-up questionnaires were administered one to two weeks later.

The *Teacher Perception of Self-Advocacy Behaviours Questionnaire* evaluated whether changes in adolescents' knowledge and opinions would result in changes in behaviour. Due to a low return rate (33%), data was not analyzed. Since the facilitators were limited with regard to time, both the initial questionnaires and the follow-up questionnaires were delivered to the schools on the days that the workshops were run. Facilitators did not have the opportunity to speak directly with teachers and therefore a letter and consent form were provided along with the questionnaires and principals were left responsible for delivering the packages to the teachers. Some principals commented that teachers were extremely busy during exam times and may not have time to complete the questionnaires and others did not distribute the questionnaires until after the workshop had taken place. Therefore it is very difficult to determine whether the pre-workshop questionnaires were in fact completed prior to the workshops. In the future, it is recommended that the researchers meet directly with the teachers, one to two weeks prior to the workshops and explain the purpose of the study and the rationale behind the *Teacher Perception of Self-Advocacy Behaviours Questionnaire*.

Another important finding is that 88 percent of adolescents indicated satisfaction with the workshop and none of the participants felt that they "didn't learn anything" from the workshop. Also of interest, 100% of parents and the adolescents approached to

participate indicated interest/willingness and 93% of those adolescents attended the workshops. This finding is exceedingly important in that it suggests that adolescents are in fact interested in and open to accepting help for their ADHD symptoms. In addition to this finding, it should be mentioned that 100% of school administration approached to participate in this study indicated interest in the workshops immediately.

Although this study has important implications for future research, there are a number of limitations, which must be addressed prior to drawing firm conclusions. First, the study did not include a control group (e.g., waitlist control or an attention-control group who received a two-hour session on a non-related topic). This information would have been useful to further support the evidence suggesting that changes in adolescents' knowledge and opinions was a result of their participation in the demystification workshop, rather than simply by chance. Also, the small sample size may have influenced the power of the statistical tests performed to deetect changes in adolescents' knowledge of and opinions surrounding ADHD. A total of six workshops took place during this study. One of these workshops included two adolescents who demonstrated behavioural concerns to a degree that affected the quality of the group. Since there were five participants in this group, results could have been significantly influenced by these troublesome behaviours. When *t-test* analyses were run having removed this group, results did not differ significantly; however, it is difficult to determine whether some participants would have learned more from the workshop had these two students not been involved. In the future, participants should be asked to leave the group if their presence is affecting the delivery of the workshop.

Since the workshops were conducted toward the end of the school year, it was a challenge to administer a follow-up assessment. Many students were completing exams

or were absent from school during the last two weeks of school, when the follow-up questionnaires were completed. Similarly, the return rate for teacher questionnaires was extremely low. In the future, it is recommended that the workshops be conducted earlier in the school year.

This study provides a wealth of information regarding directions for future development of the workshop and resulting research.

i.Group functioning. In terms of group logistics, some recommended changes include: working exclusively with grade sevens and eights, working with groups of three to six, and conducting more in-depth pre-screening to ensure that all participants are able to participate in a group effectively and will benefit from the experience. With regard to group size, effective groups appeared to have a minimum of three participants and a maximum of six. Allowing more than six adolescents to participate in a group would make it exceedingly difficult to keep students on track and run the group smoothly. In terms of the screening process, it is recommended that the researcher/facilitator meet individually with each adolescent prior to groups to determine whether the participant would be a suitable candidate for the workshop. Pre-workshop questionnaires could be administered during the initial meeting in an effort to reduce the workload for the adolescent on the day of the workshop. Some students in the present study were either unable to participate due to behavioural concerns or had difficulty grasping the content of the workshops due to developmental delays and/or learning disabilities. Comorbidity should be considered during pre-screening to make certain that adolescents' learning challenges will not prevent them from gaining useful information from a workshop format. Pre-screening would allow researchers to determine the most effective ways to run each group. Furthermore, it may be useful to run the workshop as a series of sessions,

wherein each session focuses on a specific domain. This way, all domains receive equal attention and adolescents may retain more information overall. It would be beneficial to conduct one session on a specific topic and then allow approximately two weeks for the adolescent to work on skills related to that domain before introducing a new topic. In addition to asking teachers to comment on adolescents' new skills, parents should be asked to describe any behavioural changes identified after the workshops take place. Parents should also be asked to evaluate the materials sent home with their sons/daughters following the workshops.

ii.Workshop content. Many students indicated that they were not well received when they approached teachers for help and extra support in the classroom and this suggests that it would be worthwhile to add a teacher education component to the current demystification program. Teachers may benefit from attending a one-time session wherein they are debriefed on the content of the workshop and the skills the adolescents are learning. Also, teachers may have questions or suggestions regarding the information covered in the workshop.

Finally, adolescents had a great deal of questions regarding safety issues regarding pharmacological treatments for ADHD and the consequences of combining ADHD medications with recreational drugs/alcohol. It may be useful to incorporate some more information about these issues into the existing workshop.

Demystification refers to the act of putting into plain words what an individual's strengths and weaknesses are without the use of judgment or labels (Levine, 1999). Overall, this demystification workshop for adolescents with ADHD was found to be a positive experience for most participants, with the majority of adolescents reporting that they felt they learned from it. While the workshop format was an effective means of

sharing information in some respects, more research is needed in order to determine how to maximize the amount of information adolescents acquire during the workshop and also how to ensure that this information is retained over a period of time. Furthermore, it would be useful to examine how gains in knowledge and shifts in opinions/attitudes surrounding ADHD relate to treatment choices and adherence. This study marks a starting point for the process of identifying meaningful ways to educate adolescents with ADHD about the disorder and surrounding issues in an effort to build a strong knowledge base from which adolescents are better able to make informed decisions regarding treatment selection and adherence.

Table 1.

Sample Characteristics

a) *Child Variables*

Variable	Frequency (%) (*n*=23)
Sex	
Male	21(91%)
Female	2 (9%)
Grade	
Seven	8 (35%)
Eight	9 (39%)
Nine	6 (26%)
Diagnosed by	
Psychaiatrist	13 (57%)
Psychologist	8 (35%)
Paediatrician	2 (8%)
Comorbidity	
ODD	1 (4%)
CD	1 (4%)
Depression	1 (4%)
FAS	2 (8%)
Other	1 (4%)

b) *Family Variables*

Variable	Frequency (%) (n=23)
Relationship of informant to adolescent	
Biological mother	15 (66%)
Biological Father	2 (9%)
Foster Mother	1 (4%)
Grandmother	2 (9%)
Aunt	1 (4%)
Staff member (residential care centre)	1 (4%)
Missing	1 (4%)
Family Composition	
Two-parents (biological)	13(58%)
Single parent	1 (4%)
One parent + Common law partner	3 (13%)
One parent + Step-parent	1 (4%)
Grandparents	2 (9%)
Aunt/Uncle	1 (4%)
Residential care facility (group home)	1 (4%)
Missing	1 (4%)
Highest Education (Informant)	
Less than high school	8 (35%)
High school diploma	3 (13%)
Some community college	3 (13%)
Community College Diploma	7 (30%)
Missing	2 (9%)
Occupation Status	
Works outside the home	16 (70%)
Stay at home parent	5 (21%)
Missing	2 (9%)

Table 2.

Pre and Post Measures of Knowledge and Opinions Surrounding ADHD and Related Issues

	Mean Rating		*t*	*p*
	Pre	Post	*(n=23)*	
Total Knowledge of ADHD (0-25)	18.78	20.00	-1.59	.126
Knowledge of Treatments (0-5)	3.73	4.23	-2.64	.015
Knowledge of Characteristics (0-6)	3.83	4.39	-1.84	.079
Knowledge of Developmental Course (0-4)	2.91	2.78	.72	.479
Knowledge of Etiology (0-5)	4.00	4.22	-.87	.396
Knowledge of Self-Advocacy (0-5)	4.30	4.35	-.21	.833
Opinion of use of medication (6-24)	16.34	18.30	-4.11	.000
Opinion of use of psychosocial intervention (6-24)	18.87	19.17	-.56	.580
Opinion of alternative treatments (3-15)	5.65	5.39	.62	.544
Understanding the areas of life affected by ADHD (0-16)	4.96	5.35	-.849	.405
The number of adults identified as being able to help them (0-7)	2.52	3.95	-4.10	.001
Ways to manage own ADHD (0-5)	1.86	2.29	-2.12	.047

Note: Possible ranges of scores are given in brackets following each topic. A higher mean equals a more favourable opinion.

Table 3.

Post-Intervention and Follow-Up Measures of Knowledge and Opinions Surrounding ADHD and Related Issues

	Mean Rating		*t*	*p*
	Post-intervention	Follow-up	*(n=10)*	
Total Knowledge of ADHD (0-25)	20.20	19.70	.764	.464
Knowledge of Treatments (0-5)	4.30	3.60	1.909	.089
Knowledge of ADHD Characteristics (0-6)	4.30	3.90	1.177	.269
Knowledge of Developmental Course (0-4)	2.60	3.10	-1.168	.273
Knowledge of Etiology (0-5)	4.40	4.60	-1.000	.343
Knowledge of Self- Advocacy (0-5)	4.34	2.39	4.832	.000
Opinion of use of medication (6-24)	18.90	14.00	5.371	.000
Opinion of use of psychosocial intervention (6-24)	20.00	19.90	.130	.899
Opinion of alternative treatments (3-15)	5.50	5.70	-.452	.662
Understanding the areas of life affected by ADHD (0-16)	5.10	7.10	-1.879	.093
Ways to help manage own ADHD (0-5)	2.19	1.96	1.541	.102
The number of adults identified as being able to help them (0-7)	4.67	3.89	1.941	.088

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Appendix A

Demystification Workshop for Adolescents- Outline

HOUR ONE: LEARNING ABOUT ADHD

Introduction (10 minutes)

-Go over the confidentiality contract

-Review the agenda for the workshop

-Go over group rules and set up goals

What is ADHD & How Does It Impact Our Lives? (20 minutes)

-Generate a list of ADHD symptoms

-Complete ADHD checklist

-Complete myth or fact quiz

-What does ADHD mean to you?

-Discuss the developmental course of ADHD (how it impacts the lives of children versus adolescents)

-Discuss brief excerpts from "I Would if I Could" (Gordon, 1991)

ADHD & the Brain (10 minutes)

-Discuss how the brain works and what we know about the brains of children/adolescents with ADHD

-Positive things you might not know about having ADHD

-ADHD and the brain (activity)

-Discuss what DOES NOT cause ADHD

Treatment for ADHD (10 minutes)

-Discuss evidence-based treatments for ADHD (medical and psychosocial)

-Discuss myths surrounding ADHD treatment

RECESS BREAK

HOUR TWO: DISCOVERING OUR OWN PROFILES AND

LEARNING SELF-ADVOCACY SKILLS

Creating profiles (25 minutes)

-Adolescents take part in an activity to determine their own areas of strengths and challenges

Learning self-advocacy skills (25 minutes)

-Learning when to ask for help

-Discussing who to ask for help

-Adolescents will fill out a list of people to contact when they need help

-Participants will learn how to ask for help by role-playing scenarios

Closure (10 minutes)

-Answer any question the adolescents may have and hand out certificates and snacks

-Review confidentiality issues

Appendix B

Demographic Questionnaire

Please fill out the following. We are asking these questions to learn about the adolescents and families taking part in this study.

For reasons of confidentiality, please do not include your adolescent's name or your family name anywhere on this questionnaire.

ID number: _____ Date Form Filled Out: _____

Gender of Adolescent: ⌋ Male ⌋ Female Adolescent's Current Grade: _____

Adolescent's Date of Birth: __ __ / __ __ / __ __ __ __

Day Month Year

Person Filling Out Form: _____ (e.g. mother, father, etc)

Family Composition

1. What is your relationship to your adolescent?
    - o Biological Mother/Father
    - o Adoptive Mother/Father
    - o Common Law Mother/Father
    - o Step Mother/Father
    - o Foster Mother/Father
    - o Other (please specify): _____

2. What is your current spouse or partner's relationship to your child?
    - o Biological Mother/Father
    - o I am a single parent
    - o Adoptive Mother/Father
    - o Common Law Mother/Father
    - o Step Mother/Father
    - o Foster Mother/Father
    - o Other (please specify): _____

3. How many children currently live in your home? _____

4. What is the total number of people currently living in your home? _____

5. What is your highest level of education? Check all that apply.
   - o Less than High School (Highest grade completed: _____)
   - o High School Diploma
   - o Some Community College
   - o Community College Diploma
   - o Some University
   - o University Degree

6. What is your spouse's or partner's level of education?
   - o Less than High School
   - o High School Diploma
   - o Some Community College
   - o Community College Diploma
   - o Some University
   - o University Degree
   - o Does not apply

7. What is your occupation? Check all that apply.
   Occupation_____
   - o I work outside the home part time full time
   - o Stay at home parent
   - o Student
   - o Unemployed

8. What is your spouse's or partner's occupation? Check all that apply.
   Occupation_____
   - o Work outside home full time part time
   - o Stay at home parent
   - o Student
   - o Unemployed

Adolescent's Medical History

9. Does your adolescent have a diagnosis? Please check all that apply.

- o Attention Deficit-Hyperactivity Disorder
- o Tourette Syndrome or tics
- o Oppositional Defiant Disorder
- o Conduct Disorder
- o Anxiety
- o Depression
- o Other (please specify): _____
- o My child does not have any diagnosis

10. If yes, who made this diagnosis?

- o Family Doctor
- o Pediatrician
- o Psychologist
- o Psychiatrist
- o Other (please specify): _____

When was the diagnosis made? _____

11. Is your adolescent presently taking any prescribed medication?

- o Yes (If yes, please answer questions 15 to 18)
- o No

12. What does he/she take this medication for? Check all that apply.

- o Epilepsy
- o Hyperactivity
- o Attention/Concentration Problems
- o Infection
- o Asthma
- o Other (please specify): _____

13. What prescribed medication does he/she take? Check all that apply.

- o Antibiotics
- o Ritalin/Concerta
- o Dexedrine
- o Stretarra
- o Tranquilizers or nerve pills
- o Anti-convulsants or anti-epileptic pills
- o Asthma medication
- o Other (please specify): _____

14. What is the present dosage of medication? _____

****Thank you for completing this questionnaire. Please place your questionnaire in the attached envelope, seal it and mail/return it to the researcher ****

Appendix C

Teacher Perceptions of Adolescents' Self-Advocacy Skills

Please complete the following questionnaire regarding your student's self-advocacy skills.

ID number: _____ Date Form Filled Out: _____

1. Does this student ask for extra help when he/she is experiencing difficulty?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

2. Does this student ask for accommodations with assignments (i.e., extra time, shortened assignments, use of a scribe, etc.)?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

3. Does this student ask to re-locate or change seating arrangements if he/she is being distracted during class?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

4. Does this student ask for a break when he/she is having difficulties concentrating?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

5. Does this student accept extra support when it is offered?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

6. How often does this student advocate in an effective manner for his/her individual needs?

Never	Sometimes	Most of the time	All of the time
1	2	3	4

Other comments:

_____

_____

_____

_____

_____

Appendix D

Adolescent ADHD Knowledge & Opinions Questionnaire

Section A: Knowledge

Instructions: Please listen to each of the following statements and answer True if you agree with the statement, or answer False if you do not agree with the statement.

		True	False
(1)	All people with ADHD are hyperactive	❒	❒
(2)	The only treatment for ADHD is medication	❒	❒
(3)	There are more males than females diagnosed with ADHD	❒	❒
(4)	Most students have ADHD	❒	❒
(5)	People with ADHD sometimes act before they think	❒	❒
(6)	ADHD happens because you are allergic to something	❒	❒
(7)	When kids with ADHD become teenagers their problems automatically go away	❒	❒
(8)	Medication will cure ADHD	❒	❒
(9)	Schools and parents do not want to help students with ADHD	❒	❒
(10)	Treatment for ADHD is only needed for kids, not adolescents or adults	❒	❒
(11)	ADHD is due to differences in the way people's brains work	❒	❒
(12)	If students with ADHD do not ask for help they may not always get the supports they need	❒	❒
(13)	ADHD is caused by troubles at home	❒	❒
(14)	Very few students have ADHD (e.g., only 1 or 2 kids in my school)	❒	❒
(15)	Unless things really grab their attention, students with ADHD find it hard to concentrate	❒	❒
(16)	It's OK for adolescents with ADHD to ask for special accommodations with their school work.	❒	❒
(17)	You are more likely to have ADHD if someone else in your	❒	❒

family has it too		
(18) Medication for ADHD is not safe for children and adolescents	❒	❒
(19) There are lots of things adolescents can do themselves to help manage their ADHD	❒	❒
(20) Adolescents with ADHD are more hyperactive than children with ADHD	❒	❒
(21) ADHD can affect the relationships adolescents have with others	❒	❒
(22) Adolescents with ADHD may still experience symptoms as adults	❒	❒
(23) It is important that adolescents with ADHD understand their individual strengths and weaknesses	❒	❒
(24) Only your teacher can help you manage your ADHD	❒	❒
(25) ADHD is caused by eating too much sugar	❒	❒

Section B: Opinions

Instructions: Please listen to each of the following statements and rate whether you agree or disagree with the statement. You will need to pick one of the following answers: Strongly Disagree (this means that you really do not agree with the statement), Disagree (this means that you sort of disagree with the statement), Agree (this means that you sort of agree with the statement), or Strongly Agree (this means that you really agree with the statement). Try to answer as many as possible.

(26) ADHD can be treated with massage therapy

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(27) Medication helps students with ADHD pay attention

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(28) Medication helps students with ADHD control their behavior

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(29) ADHD can go away if you eat a certain type of food

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(30) It's OK for teachers to give students with ADHD extra help in school

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(31) I believe every bad thing I hear about ADHD medication

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(32) Doctors know that medications for ADHD are safe

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(33) Learning information about ADHD would be helpful to me

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(34) Medication helps adolescents get along better with their friends and family

1	2	3	4

Strongly Disagree Disagree Agree Strongly Agree

(35) My parents can help me with my ADHD

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(36) Medication can help students get better grades in school

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(37) Parents can take classes to learn how to help their adolescent with ADHD

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(38) You can learn ways to help yourself control ADHD

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(39) There are ways that students with ADHD and their teachers can work together so schoolwork gets done without so much trouble

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

(40) There are vitamins you can take that make ADHD go away

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Section C: Impact

Instructions: Please listen to each of the following statements and put a checkmark in all the boxes that apply.

(41) ADHD makes it hard for me to get along with:

- ❒ Mom
- ❒ Dad
- ❒ Brothers/sisters
- ❒ Friends
- ❒ Teachers
- ❒ Sport Coaches
- ❒ Other _____

(42) ADHD makes it hard for me to concentrate:

- ❒ In school
- ❒ At home
- ❒ During sports
- ❒ Playing with friends
- ❒ Other _____

(43) ADHD makes it hard for me to stay out of trouble:

- ❒ In classroom
- ❒ At home
- ❒ During sports
- ❒ Playing with friends
- ❒ Other _____

(44) The following adults can help me with my ADHD:

- ❒ Teacher
- ❒ Parent
- ❒ School Psychologist
- ❒ Resource Teacher
- ❒ Sports Coach
- ❒ Doctor
- ❒ Other _____

(45) I can learn ways to control my ADHD on my own when I am:

- ❒ At Home
- ❒ At school
- ❒ With friends
- ❒ During sports
- ❒ Other _____

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!!!

Answer Sheet
Child ADHD Questionnaire

Knowledge:

(1) F	(6) F	(11) T	(16) T	(21) T
(2) F	(7) F	(12) F	(17) T	(22) T
(3) T	(8) F	(13) F	(18) F	(23) T
(4) F	(9) T	(14) F	(19) T	(24) F
(5) T	(10) F	(15) T	(20) F	(25) F

Total Correct: _____

Opinion:

Medication	Psychosocial Interventions	Alternative
(17)	(20)	*(16)
(18)	(23)	*(19)
*(21)	(25)	*(30)
(22)	(27)	
(24)	(28)	
(26)	(29)	
Totals: _____	_____	_____

*** Indicates correction factor**: 4 = 1, 3 = 2, 2 = 3, 1 = 4

Impact:

	Other:
(31) ____ / 7	_____
(32) ____ / 5	_____
(33) ____ / 5	_____
(34) ____ / 7	_____
(35) ____ / 5	_____

Appendix E

Consent Forms

Research Consent Form (Adolescent)

Study Title: The Evaluation of a Demystification Workshop for Adolescents with ADHD

Researchers: Ms. Erin Trudel-Best, Master of Arts in School Psychology student and Psychology Intern, XXXXX School Board, Mount Saint Vincent University (XXXXX)

Ms. XXXXX, MA, Registered Psychologist, School Psychologist with the XXXXX School Board (XXXXX)

Dr. Penny Corkum, Ph.D., Registered Psychologist
Assistant Professor, Psychology Department,
Dalhousie University (902-494-5177)

Mount Saint Vincent University Contact: Dr. Deborah Norris, Chair of the University Research Ethics Board (UREB), Mount Saint Vincent University (902-457-6376)

Introduction:
Thank you for your interest in participating in this research study. The following is information about the ADHD demystification workshop that will take place at your school. The study is part of the requirements for the Master of School Psychology program at Mount Saint Vincent University (MSVU) and will be conducted by Erin Trudel-Best (Master of Arts in School Psychology student at Mount Saint Vincent University and psychology intern with the XXXXX School Board) under the supervision of Dr. Penny Corkum, a Registered Psychologist and an Assistant Professor at Dalhousie University. This project was designed to evaluate the effectiveness of a demystification workshop for adolescents with Attention-Deficit/Hyperactivity Disorder (i.e., it examines whether adolescents' knowledge of ADHD increases after completing the workshop).

It is important that you read and understand three general principles that apply to everyone taking part in this study:

1) Participation in this study is entirely voluntary and no compensation is provided. You have the opportunity to choose whether or not you wish to participate. There will be no consequences if you choose not to participate in this study, it is your choice.

2) Personal benefits may not result from taking part, but knowledge may be gained that will help others.

3) You may withdraw from the study at any time. You will not experience any consequences if you choose to withdraw at any point throughout the study.

The study is described below, included are the potential benefits and risks, as well as any inconvenience or difficulties that you may experience. If you have any questions about this study, please ask your school principal or contact Erin Trudel-Best or XXXXX (XXXXX). Please feel free to ask questions at any time.

Purpose of the Study:
The information we collect will be used to examine the effectiveness of an ADHD demystification workshop that has been specially designed for adolescents with ADHD. The program has been adapted from another workshop, used with children with ADHD. There has been very little previous research done to assess adolescents' knowledge of ADHD. The purpose of the current study is to determine whether the workshop we have adapted for adolescents is effective in increasing their knowledge of ADHD.

Description of the Study:
You have been invited to participate in the ADHD demystification workshop being conducted at your school as well as other schools in the XXXXX School Board. The program consists of a two-hour session that you will attend during regularly scheduled school hours. You will take part in the group along with four to eight other adolescents from your school. During the group, you will learn about ADHD and how it affects your behavior. This information will be shared through the use of a visual presentation, worksheets and interactive activities. You will also have the opportunity to ask questions and interact with other students in your school with ADHD. Prior to participation in the group, both you and your parent/guardian will be asked to sign a consent form. Your teacher(s) will also be asked to fill out a form that will give the researchers an indication of your current self-advocacy skills (ability to ask for help). On the day of the workshop, you will be asked to respond to a questionnaire that measures your knowledge and opinions of ADHD. After the workshop, you will again be asked to fill out a questionnaire. You will be asked to complete the questionnaire one last time 1-2 weeks after the workshop has been completed. At this time, your teacher(s) will be asked to fill out the same questionnaire he/she filled out before once again. The questionnaires will take approximately fifteen minutes to complete on each occasion. In total, the study will involve 3.5 hours of your time. You will be excused from class to participate in the study and you will not miss any recess or lunch breaks.

Who can participate in this study?
Adolescents in grades 7-9 who have been diagnosed with ADHD are eligible to participate in this study. In order to participate, both you and your parent/guardian must provide written consent.

Selection for participation:
The principal of your school felt that you would benefit from this type of workshop. All the students selected have a diagnosis of ADHD. The School Psychologist for your school has already contacted your parent/guardian about participating in this study and he/she has agreed to allow you to participate if you so choose.

Procedures of the study:
If you choose to participate in this study, you will be asked to sign a consent form and so will your parent/guardian. You will also be asked to complete a questionnaire measuring your knowledge of and opinions about ADHD, which will take about 15 minutes to complete at each of the three time-points (before, directly after and 1-2 weeks after the workshop). Your parent and teacher will be asked to complete one short questionnaire prior to the workshop. The workshop you will take part in will last two hours and will involve teaching the group about ADHD and discovering ways to manage ADHD both on your own and with the help of others.

Risks and Discomforts:
In order to ensure that participants' privacy is maintained, we will request that everyone participating in the group sign a confidentiality contract. This means that the purpose of the group and the names of the other students in the group will be considered private information and you will be asked not to share this information will others. It is important that you understand the seriousness of this issue and agree to sign the confidentiality contract if you wish to participate in this study.

It is very unlikely that you will experience any negative effects from participating in this study. Some adolescents may feel a little anxious or uneasy at the beginning of the session, but this should pass when they become comfortable with the facilitators and fellow group members. There will always be two facilitators present during the workshop (Erin Trudel-Best and XXXXX). At all times, we will do everything possible to make sure that participation in this study is as pleasant and enjoyable as possible.

Possible Benefits:
You may or may not directly benefit as a result of participating in this study. You may or may not notice an increase in your knowledge of ADHD after completing the workshop. The information provided by this study will give an indication of whether or not adolescents are able to learn about ADHD, its effects and treatments, in a workshop setting. Your participation will help us come to these conclusions.

Alternative treatments:
To our knowledge there are no other ADHD demystification workshops that are currently being held in the XXXXX School Board. Alternatives to the current workshop would be: 1) to ask for individual therapy through your school; 2) to ask for the help from a private psychologist; or 3) to see whether your school has any additional ADHD programs.

Compensation:
There will be no costs or compensation of any kind for participating in this study; however, each adolescent will be offered a completion certificate and snacks at the end of the workshop.

Confidentiality:
Confidentiality will be respected at all times. Information collected as part of this study will not be released to you, your parents, or to school personnel unless there is concern about your safety or if required by the law. Information that is collected is coded by numbers not names. This means that your name will not be on any of the forms that we collect from you. All research data will be stored in a locked filing cabinet in Dr. Penny Corkum's office at Dalhousie University. The researchers will create a report of the findings of this study once the groups have ended, but there will be no mention of your name or your school in this report. The results are based on the entire group, not on individuals participating in the study.

Questions or Problems:
If you have any questions or concerns about the study, please contact Erin Trudel-Best, Master of Arts in School Psychology student at Mount Saint Vincent University and intern with the XXXXX School Board (XXXXX) or Dr. Penny Corkum, Assistant Professor, Dalhousie University (902-494-5177). If you wish to speak to someone at Mount Saint Vincent University, please contact Dr. Deborah Norris at (902-457-6376). You will be provided with a copy of this consent form. Thank you for taking the time to read this. We greatly appreciate your assistance in our research. This study has been approved by the XXXXX School Board. For further

information, please contact XXXXX (Superintendent of the XXXXX School Board) at (XXXXX).

Research Consent Form (Adolescent)

Study Title:	The Evaluation of a Demystification Workshop for Adolescents with ADHD
Researchers:	Ms. Erin Trudel-Best, Master of Arts in School Psychology student and Psychology Intern, XXXXXSchool Board; Mount Saint Vincent University (XXXXX) Ms. XXXXX, MA., Registered Psychologist, School Psychologist with the XXXXXSchool Board (XXXXX) Dr. Penny Corkum, Ph.D., Registered Psychologist Assistant Professor, Psychology Department, Dalhousie University (902-494-5177)
Mount Saint Vincent University Contact:	Dr. Deborah Norris, Chair of the University Research Ethics Board (UREB), Mount Saint Vincent University (902-457-6376)

I have read the explanation about this study and have been given an opportunity to discuss it and ask questions. By providing consent, I am agreeing to participate in the ADHD demystification workshop at my school as described in the above letter, and am aware that I will be required to fill out the mentioned questionnaires.

_____ _____
Signature of Adolescent Date Signed

_____ _____
Signature of Investigator Date Signed

Please indicate whether you are interested in receiving a brief summary outlining the results of the present study. It should be noted that these results will address the effectiveness of the workshop for the entire group of participants. Your own results will not be made available, but rather the overall group results will be shared.

☐ YES, I would like a summary of the results.
☐ NO, I would not like a summary of the results.

If yes, please provide a mailing address:

_____
_____
_____

Appendix F

Consent Forms

Research Consent Form (Parent)

Study Title: The Evaluation of a Demystification Workshop for Adolescents with ADHD

Researchers: Ms. Erin Trudel-Best, Master of Arts in School Psychology student and Psychology Intern, XXXXXSchool Board, Mount Saint Vincent University (XXXXX)

XXXXX, MA., Registered Psychologist, School Psychologist with the XXXXX School Board
(XXXXX)

Dr. Penny Corkum, Ph.D., Registered Psychologist
Assistant Professor, Psychology Department,
Dalhousie University (902-494-5177)

Arms Length Contact: Dr. Deborah Norris, Chair of the University Research Ethics Board (UREB), Mount Saint Vincent University
(902-457-6376)

Introduction:
Thank you for your interest in participating in this research study. The following is information about the ADHD demystification workshop that will take place at your adolescent's school. The study is part of the requirements for the Master of School Psychology program at Mount Saint Vincent University and will be conducted by Erin Trudel-Best (Master of Arts in School Psychology student at Mount Saint Vincent University and intern with the XXXXX School Board) under the supervision of Dr. Penny Corkum, a Registered Psychologist and an Assistant Professor at Dalhousie University. This project was designed to evaluate the effectiveness of a demystification workshop for adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD); it examines whether adolescents' knowledge of ADHD increases after completing the workshop.

It is important that you read and understand three general principles that apply to all who take part in this study:

1) Participation in this study is entirely voluntary and no compensation is provided. Whether you and your adolescent participate or not, other services provided at the school will not be affected.

2) Personal benefits may not result from taking part, but knowledge may be gained that will benefit others.

3) You and your adolescent may withdraw from the study at any time. Withdrawing from the study will not alter your adolescent's school experience.

The study is described below, included are the potential benefits and risks, as well as any inconvenience or difficulties that you or your adolescent may experience. If you have any

questions about this study, please contact Erin Trudel-Best (XXXXX) or Dr. Penny Corkum (902-494-5177). If you wish to speak to someone who knows about the study but is not directly involved, you may contact Dr. Deborah Norris, Chair of the University Research Ethics Board at Mount Saint Vincent University (902-457-6376).

Purpose of the Study:
The information we collect will be used to examine the effectiveness of an ADHD demystification workshop that has been specially designed for adolescents with ADHD. The program has been adapted from an existing workshop, used with children with ADHD. There has been very little previous research done to assess adolescents' knowledge of ADHD. The purpose of the current study is to determine whether the workshop we have adapted for adolescents is effective in increasing their knowledge of ADHD.

Description of the Study:
Your son/daughter has been invited to participate in the ADHD demystification workshop being conducted at your adolescent's school in the XXXXX School Board. The program consists of a two-hour session that your adolescent will attend during regularly scheduled school hours. Your adolescent will take part in the group along with four to eight other adolescents from his/her school. They will learn about ADHD and how it affects their behavior. This information will be shared through the use of a visual presentation, worksheets and interactive activities. Your son/daughter will also have the opportunity to ask questions and interact with other adolescents with ADHD. Prior to participation in the group, both you and your child will be asked to sign a consent form. Your son/daughter's teacher(s) will also be asked to fill out a questionnaire which describes your adolescent's current ability to self-advocate (ask for help) at school. You will be asked to fill out a short background questionnaire. Once you have completed the questionnaires, both can be placed in a sealed envelope (attached) and mailed back to the researcher. On the day of the workshop, your son/daughter will be asked to respond to a questionnaire that measures his/her knowledge and opinions of ADHD. After the workshop, your adolescent will again be asked to fill out a questionnaire. Your son/daughter will be asked to complete the questionnaire one last time 1-2 weeks after the workshop has been completed. The questionnaires will take approximately fifteen minutes to complete on each occasion. In total, the study will involve 3.5 hours of your son/daughter's time.

Who can participate in this study?
Adolescents in grades 7-9 who have been diagnosed with ADHD are eligible to participate in this study. Participation is based on consent of both the adolescent and his/her parent/guardian.

Selection for participation:
The principal of your adolescent's school felt that your adolescent would benefit from this type of workshop. All the students selected have a diagnosis of ADHD. The School Psychologist for your adolescent's school initially contacted all parents/guardians of adolescents asked to participate.

Procedures of the study:
If you choose to have your son/daughter participate in this study, you will both be asked to sign a consent form. You will be asked to fill-out a short background questionnaire prior to the workshop, which will take about 15 minutes to complete. Your adolescent's teacher will also be asked to complete a short questionnaire prior to the workshop and again 1-2 weeks after the workshop has taken place. Your son/daughter will be asked to complete a questionnaire measuring his/her knowledge of and opinions about ADHD, which will also take about 15

minutes to complete at each of the three time-points (before, directly after and 1-2 weeks after the workshop). The workshop your son/daughter will take part in will last two hours and will involve teaching your adolescent about ADHD and discovering ways to manage ADHD both on his/her own and with the help of others.

Risks and Discomforts:
In order to ensure that participants' privacy is maintained, we will request that each adolescent sign a confidentiality contract wherein he/she will be asked to treat the purpose of the group and the names of other students involved in the group as private information, not to be shared with others.

It is very unlikely that you or your son/daughter will experience any negative effects from participating in this study. Some adolescents may feel a little anxious or uneasy at the beginning of the session, but this should pass when they become comfortable with the facilitators and fellow group members. There will always be two facilitators present during the workshop. At all times, we will do everything possible to make sure that participation in this study is as pleasant and enjoyable as possible.

Possible Benefits:
Your son/daughter may or may not directly benefit as a result of participating in this study. You may or may not see an increase in your child's knowledge of ADHD after completing the workshop. The information provided by this study will give an indication of whether or not adolescents are able to learn about ADHD, its effects and treatments, in a workshop setting. Your adolescent's participation will help us come to these conclusions.

Alternative treatments:
To our knowledge there are no other ADHD demystification workshops that are currently being held in the XXXXXSchool Board. Alternatives to the current workshop would be: 1) to ask for individual therapy through your child's school; 2) to ask for the help from a private psychologist; or 3) to see whether your adolescent's school has any additional ADHD programs.

Compensation:
There will be no costs or compensation of any kind for participating in this study; however, each adolescent will be offered a completion certificate at the end of the workshop.

Confidentiality:
Confidentiality will be respected at all times. Information collected as part of this study will not be released to you, your adolescent, or to school personnel unless there is concern about your child's safety or if required by the law. Information that is collected is coded by numbers not names. All research data will be stored in a locked filing cabinet in Dr. Penny Corkum's office at Dalhousie University. The raw data (i.e., questionnaires) used in the analysis will be destroyed (i.e., shredded) five years after study completion. Only group data will be discussed and there will be no individual reports of our findings.

Questions or Problems:
If you have any questions or concerns about the study, please contact Erin Trudel-Best, Master of Arts in School Psychology student (MSVU) and intern with the XXXXXSchool Board (XXXXX) or Dr. Penny Corkum, Assistant Professor, Dalhousie University (902-494-5177). You will be provided with a copy of the consent form for your personal records. If you would like to talk to someone who knows about this study, but is not directly involved, you can contact Dr. Deborah Norris, Chair of the University research Ethics Board at Mount Saint Vincent University

(902-457-6376). Thank you for taking the time to read this. We greatly appreciate your assistance in our research.

This study has been approved by the XXXXX School Board. For further information, please contact XXXXX (Superintendent of the XXXXX School Board) at (XXXXX).

Research Consent Form (Parent)

Study Title:	The Evaluation of a Demystification Workshop for Adolescents with ADHD
Researchers:	Ms. Erin Trudel-Best, Master of Arts in School Psychology student and Psychology Intern, XXXXXSchool Board, Mount Saint Vincent University (XXXXX) Ms. XXXXX, MA., Registered Psychologist, School Psychologist with the XXXXXSchool Board (XXXXX) Dr. Penny Corkum, Ph.D., Registered Psychologist Assistant Professor, Psychology Department, Dalhousie University (902-494-5177)
Arms Length Contact:	Dr. Deborah Norris, chair of the University Research Ethics Board (UREB), Mount Saint Vincent University (902-457-6376)
Return to:	If you wish to participate in this study, please place the signed consent form in the attached envelope, seal it, and return it/mail it to the researcher.

I have read the explanation about this study and have been given an opportunity to discuss it and ask questions. By providing consent, I am allowing my son/daughter to participate in the ADHD demystification workshop at his/her school as described in the above letter, and am aware that both my adolescent and I will be required to fill out the mentioned questionnaires.

_____ _____
Signature of Parent/Guardian Date Signed

_____ _____
Signature of Investigator Date Signed

Please indicate whether you are interested in receiving a brief summary outlining the results of the present study. It should be noted that these results will address the effectiveness of the workshop for the entire group of participants. Individual adolescent's results will not be made available.

☐ YES, I would like a summary of the results.
☐ NO, I would not like a summary of the results.

If yes, please provide a mailing address:

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