Exploring the Treatment Acceptability of Anxiety Services Among Adolescents

by

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Abstract

The current study sought to explore adolescents' perceptions of different anxiety services, and the treatment acceptability of those services. Personal characteristics such as mental health history, mental illness stigma, and mental health literacy, and their impact on treatment acceptability ratings were also explored. An analog methodology was employed. Participants were presented with a vignette of a student with anxiety, and descriptions of five different mental health services (classroom teacher support, school counsellor support, mental health counsellor support, psychiatrist support, and internet counsellor support). Participants completed the Children's Intervention Rating Profile, which is a treatment acceptability scale, for each of the five service options. Participants also answered an open-ended question about their preferred treatment option. Results of a series of repeated measures ANOVA's showed that there was a significant difference in the treatment acceptability ratings among the five service options. Specifically, classroom teacher, school counsellor, and mental health counsellor support were rated significantly higher than psychiatrist or internet counsellor support. Mental illness stigma was significantly positively correlated with mental health counsellor and psychiatrist support treatment acceptability ratings. Participants endorsed mental health counsellor support as their overall preferred service option. Some themes from the open-ended question that emerged were therapeutic approach, anonymity, time commitment, and previous treatment experience.

Lay Summary

This thesis presents data on adolescents' perceptions of various anxiety services. The ultimate goal of this study is to increase mental health service use among adolescents with mental health difficulties. By understanding what adolescents view as acceptable treatments, schools and mental health practitioners can invest their resources into implementing treatments and services that adolescents are more likely to use. A secondary goal of the present study is to increase mental health practitioner knowledge of adolescents' opinions and perceptions of mental health services. By doing so, mental health practitioners will be better situated to make targeted mental health referrals to adolescents with mental health difficulties.

Preface

This thesis is submitted in partial fulfillment of the requirements for Master of Arts in School Psychology at the University of British Columbia. The principal investigator was my supervisor, Dr. William McKee. The research design, data collection, writing of the thesis, and data analysis were conducted and are the intellectual property of the author, E. Thauberger. Dr. McKee acted as supervisor and assisted with study design and data interpretation. The data was not collected as part of another study at UBC. The methods and procedures reported in Chapter 3 were approved by the UBC Behavioural Research Ethics Board, certificate no. H17-02510.

Table of Contents

List of Tables

List of Figures

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Chapter 1: Introduction

Mental Health in Adolescents

It is estimated that 10-20% of Canadian youth have a mental illness, with suicide among the leading causes of death in youth, accounting for 24% of all adolescent deaths, as reported by the Canadian Mental Health Association (Fast Facts About Mental Health, 2018). In British Columbia, 4-5% of male youth and 13% of female youth have self-reported feelings of anxiety and depression (Smith et al., 2014). Despite the presence of mental health concerns among adolescent populations, there is evidence that youth do not receive appropriate help. Some literature has reported estimates that only 18-34% of youth with anxiety or depression seek professional help for their mental health concerns (Gulliver et al., 2010). When adolescents do seek help for their mental health concerns, they tend to rely primarily on available social supports such as family and peers (Rickwood, Deane, & Wilson, 2007). Overall, it is estimated that only 1 in 5 Canadian children with mental health concerns receive appropriate professional services (Fast Facts About Mental Health, 2018). Research has demonstrated that there are many barriers to help-seeking among youth, barriers that might account for the difference between the prevalence of mental illness and the number of adolescents who seek treatment. Some proposed barriers to help-seeking are factors related to gender, perceived stigma, race, suicidal ideation and (lack of) mental health literacy (Burns & Rapee, 2006; Carlton & Deane, 2000; Cauce, et al. 2002; Rickwood, Deane, Wilson, & Ciarrochi, 2005). In addition, research in the area of social validity and treatment acceptability of professional services may provide other explanations as to why youth may not be engaging with appropriate mental health services.

Social Validity

The concept of social validity was introduced in 1978 by Montrose Wolf, in an effort to emphasize the importance of measurement of subjective elements in psychological research (Wolf, 1978). Social validity suggests that society judges the merits of a program on three levels: 1) the goals of the program, 2) the procedures within the program, and 3) the effects, or results, of the program. Therefore, a program may be viewed as socially valid if individuals within society believe its goals to be of significant importance, that the means of achieving these goals are appropriate, and that the program is effective in maximizing individual goals and minimizing negative side effects. Theoretically, even if a program is found to be empirically valid, it is possible that it may not be socially valid for any of the reasons mentioned above. And so, it is not enough that a program be shown to be effective in a research setting, it must also be viewed as useful by the public and potential consumers. Consequently, social validity has been shown to impact program purchasing and use. This construct can be applied to a number of fields such as economics, psychology, and health care. One concern about social validity is that it is not a reliable depiction of the subjective experience. Another concern is that programs that are well-liked by clients are not necessarily those that have been demonstrated to be effective. This is a concern due to the fact that clients are going to select treatments that they like or perceive as effective based on anecdotal evidence, regardless of the scientific merit of the treatment. This emphasizes the importance of a client's subjective ratings of psychological treatments, as they are going to have a substantial impact on treatment uptake and use (Wolf, 1978).

Treatment Acceptability

Treatment acceptability is an extension of the social validity construct, specifically focused on consumers' (both patients and providers) judgments about psychological and medical

treatments (Miltenberger, 1990; Wolf, 1978). Treatment acceptability, much like the parent construct of social validity, is influenced by the public's opinions about the goals of the treatment, the content of the treatment procedures, as well as the effects and side effects of the treatment (Carter, 2007). To assess the construct of treatment acceptability in psychological practice, researchers have developed specific methodologies designed to help assess treatment or intervention options. In addition, treatment acceptability has been tested across many contextual variables that may influence the treatment acceptability of a given psychological treatment. These variables include multiple sample populations, psychological treatments and methods by which they are presented. Furthermore, treatment acceptability and its relationship to treatment implementation and adherence have also been examined.

To speak of its methodology, there are several rating scales available that seek to measure treatment acceptability (Finn & Sladeczek, 2001). Each has been developed to be employed with specific populations, including measures developed for children, parent, and teacher research participants. Much of this research is analogue research, where the rater is presented with a vignette and different treatment options that they rate on a number of dimensions such as ease of implementation, liking, and treatment relevance. Unfortunately, treatment acceptability is influenced by several factors, including but not limited to – existing knowledge about the treatment, contrast effects, and presentation order of the treatments to the rater (Kazdin, 1981), which must be controlled for by the researcher.

Researchers have also explored the treatment acceptability of psychological programs and interventions in various populations including potential patients, laypersons, parents/relatives of patients, and even psychological professionals (Carter, 2007). The rationale for undertaking this research is to better understand which treatments are going to be most

acceptable to those who will be making use of said treatments. In the case of child clinical populations, one has to consider that parents will be the ones paying for treatment, and making sure the child attends the intervention program; and so their subjective evaluation of the treatments will also be reflected in the treatment acceptability ratings (Finn & Sladeczek, 2001; Miltenberger, 1990). Consequently, these subjective evaluations will have an impact on their child's attendance and treatment participation.

In recent years, research has focused on ensuring the effectiveness of mental health treatments. However, there has been limited research on treatment acceptability of mental health service options and how acceptability might influence the uptake and implementation of various mental-health services targeted at youth. The treatment acceptability of a given psychological intervention can have long-term impacts on factors such as treatment uptake and adherence (Kazdin, 2000). For example, if a client does not see a treatment as being acceptable, they may not be as willing to enter into treatment voluntarily. Similarly, treatments that earn higher treatment acceptability ratings may see increased rates of patient compliance, and lower rates of attrition (Kazdin, 2000). Therefore, it is possible to deduce that treatments with higher acceptability will be more readily sought after and employed (by both patient and practitioner) in the manner intended; which can have long term consequences on the treatment outcome.

Although youth today are experiencing elevated levels of mental illness, particularly anxiety, depression, and suicidal ideation, there seems to be limitations on help-seeking among this population (Gulliver et al., 2010). Despite the documented need for and availability of effective treatments, mental health professionals have developed treatments that are not being utilized by youth as represented by the fact that only 1 in 5 youth seek help from appropriate sources (Fast Facts About Mental Health, 2018). It is important to understand why youth are not

participating in mental health services, as this knowledge could increase the number of adolescents with mental illnesses who receive appropriate and effective treatment. As outlined above, we know that factors such as culture, socioeconomic status, and mental health literacy can impact help-seeking among youth. However, we lack comprehensive understanding of the characteristics of professional services and available treatment options that may act as barriers to youth engaging in mental health services available to them.

Purpose of the Present Study

The purpose of this study was to investigate the acceptability of mental health services to adolescents with mental health concerns, and potential characteristics of youth that may be related to differences in how they view the options for treatment and support available to them. Previous research in this area has focused on parent and teacher perceptions of mental health treatments; which has allowed a profile of mental health treatments to emerge that primarily reflects adult subjective evaluations of treatment options. While this research is important, it was postulated that adolescents may have different subjective evaluations of mental health services than those of their parents, teachers or other adults. Since adolescents are the intended recipients of mental health services both in and out of school, it is important to consider their evaluations and perceptions of the services being offered to them. Therefore, this study focused on the perceptions of the adolescent population about available mental health services. The current study sought to understand how adolescents respond to a variety of formal and informal support and treatment options and some of the characteristics of individuals that may impact how individuals vary in they way they perceive treatment and support options.

Chapter 2: Review of Relevant Literature

Mental Health and Adolescents

In recent years, there has been increased interest globally in addressing mental health concerns among children and adolescents (Achenbach, Rescorla, & Ivanova, 2012). In 2015, a meta-analysis was conducted to determine global prevalence of mental health disorders among youth (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). The authors collected studies from 27 countries and gathered information about disorder prevalence and participant ages. The authors of the meta-analysis reported a world-wide prevalence of mental disorders among children and adolescence of 13.4%, with anxiety and externalizing disorders having the highest prevalence rates (6.5 and 5.7% respectively).

In Canada, the Canadian Mental Health Association (CMHA) estimates that anywhere between 10% and 20% of Canadian youth have a mental illness, which is consistent with global estimates (Fast Facts About Mental Health, 2018). In addition, the CMHA has reported that suicide is one of the leading causes of death among youth, accounting for 24% of all adolescent deaths. In British Columbia, questionnaires and surveys have been used to gather more information about the mental health concerns among youth in B.C. British Columbia's Representative for Children and Youth Mary Ellen Turpel Lafond and Provincial Health Officer Dr. Perry Kendall reported in *Growing Up in B.C. – 2015* that in 2012-2013, as many as 2,133 BC youth were hospitalized for mental health problems, and about one third of BC youth indicated that they were under extreme stress (Turpel-Lafond, 2015). One of the most comprehensive such surveys to date is the BC Adolescent Health Survey, in 2013, conducted by the McCreary Society (Smith, et al. 2014). The results of the 30,000 respondents surveyed showed that 22% of females and 15% of males reported at least one mental health condition.

With respect to specific mental health disorders, 4-5% of male youth and 13% of female youth reported feelings of anxiety and depression (Smith et al., 2014). Finally, of the youth surveyed, 9% of females and 3% of males had attempted suicide in the last year. Therefore, it is clear that a substantial proportion of B.C. youth are having mental health difficulties, and that mental health and suicide continue to be an important public health issue in B.C.

Mental Health Service Availability and Use

Currently, there are several types of service providers and mental health treatment options available to Canadian youth. In the context of this review, we will discuss them in terms of "informal" and "formal" sources. Informal sources are resources and/or individuals that may improve adolescents' well-being, but where the service provider has a social rather than professional relationship with the adolescent, including friends or family members (Rickwood, Deane, Wilson, & Ciarrochi, 2005), or where the source is provided passively, such as informational brochures or informational services. Research has indicated that youth generally prefer to seek help for mental health concerns from informal sources, with older youth preferring to seek help from friends (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Another service option that will be discussed is that of internet based mental health resources. In a 2010 study, researchers found that 38.8% of Australian youth surveyed used the internet to seek information about a mental health problem (Burns et al., 2010). As technology and internet-based resources have increased and improved in the past 7 years, it is assumed that a similar number (or more) of B.C. youth will also use the internet to seek out information about their own mental health concerns.

In terms of formal supports, early research in this area found that close to 75% of youth seek help from those in the education realm, such as guidance counsellors, teachers, and school

psychologists, some of whom may or may not have specific training with mental health concerns (Burns et al., 1995). Furthermore, it has been suggested school professionals such as guidance counsellors are often the first responders to adolescent mental health, as close to 16% of adolescents with an identified mental disorder received school counselling (Rickwood, Deane, Wilson, 2007). In British Columbia, 41% identified teachers as someone from whom they had asked for help in the last year, making them the 3rd most sought support, after friends and family (Smith, 2014). Though teachers are one of the most popular sources of support the British Columbia Ministry of Child and Family Development has set forward several recommendations for youth with mental health concerns. One key resource for youth with mental health concerns in British Columbia are the services provided by Child and Youth Mental Health (CYMH). One of the goals of CYMH is to provide youth and their families with free mental health services and supports including (but not limited to) nurses, counsellors, occupational therapists, physicians, psychiatrists, psychologists, rehabilitation therapists, social workers and support staff. Although CYMH services vary from community to community, they often include assessment, treatment, consultation, therapy (individual, group, and family therapy), and psycho-pharmacological treatment, day programs and parent education. Clearly, formal supports are available in the community that can help youth gain access to assessment and treatment for their mental health concerns.

Unfortunately, despite the presence of formal treatment options for their mental health concerns, there is evidence that many youths do not receive appropriate help. Some estimates are that only 18-34% of youth with anxiety or depression seek professional help for their mental health concerns (Gulliver et al., 2010). When adolescents do seek help for their mental health concerns, they tend to rely primarily on informal supports such as family members and peers

(Rickwood et al., 2007), or the internet. Overall, it is estimated that only 1 in 5 Canadian children with mental health concerns receive appropriate professional services (Fast Facts About Mental Health, 2018). Based on this information, it is clear that there is a discrepancy between the desires of individuals that require mental health services and what is being offered to them in terms of treatment options. Because of this, the remainder of this study will be focusing on possible explanations for the youth-service provider disconnect.

Characteristics that Impact Help-Seeking

Due to the discrepancy between the number of youths who require mental health treatment and those who seek help for their mental health problems, researchers have investigated reasons why some adolescents seek help and others do not. Research has demonstrated that there are many barriers and facilitators to help-seeking among youth, factors that might account for this discrepancy. Five keys factors that are known to influence help-seeking will be discussed below and include factors such as problem recognition, culture and race, gender, mental health literacy, and mental health stigma.

Perhaps one of the major predictors in determining adolescent help-seeking, is the recognition that a mental health problem exists (Cauce et al.,2002; Rickwood et al., 2007). In a meta-analysis of mental health literature, Gulliver et al. (2010) found that a failure to perceive the need for help was one of the biggest barriers to adolescents seeking help for their mental health concerns. In this analysis, 13 studies evaluating barriers and facilitators to mental health seeking among youth were analyzed for themes in help seeking behaviour. What they found was that, of the 13 studies analyzed, 5 identified that difficulties identifying the symptoms of mental illness was a significant barrier to help seeking. This was the third most common theme after stigma (barrier) and confidentiality and trust (facilitator). One of the studies they analyzed found

that while adolescents were often distressed, they applied different meanings to the distress in order to avoid help seeking (Biddle, Donovan, Sharp, & Gunnell, 2007 cited in Gulliver et al., 2010). A related concept to problem recognition is that of mental health literacy. Mental health literacy refers to "knowledge and beliefs about mental disorders which aid their recognition, management, or prevention" (Jorm, 2012). Aside from increasing knowledge about mental health symptoms, mental health literacy has been shown to increase adolescents' urgency for seeking help, and increase the chance of them seeking help from appropriate sources (J. Burns & Rapee, 2006). Mental health literacy has also been demonstrated to influence mental health stigma, another influencer of help seeking behaviour. Mental health stigma has been linked with decreased help-seeking among adolescents, due to fear of being perceived as having a mental illness, and the negative connotations that such a label possesses in Western Society (Clement et al., 2014; Nadeem et al., 2007; Rickwood, Deane, Wilson, & Ciarrochi, 2005; Sirey et al., 2001).

In looking at culture, researchers have found that students from different cultural backgrounds exhibit different help-seeking behaviour with regards to their mental health. One possible reason for this difference is that there may be cultural differences in recognizing mental illnesses and what is considered "problem behaviour" (Cauce et al., 2002). For example, in some cultures, behaviour that would be indicative of a mental illness in Western cultures may be attributed to spiritual or religious causes in others (Cheung & Snowden, 1990 as cited in Cauce et al., 2002). Gender is another important predictor of treatment uptake among adolescents. In general, it has been found that girls are more likely than boys to seek help for their mental health concerns (Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). Similarly, it has been found that women generally exhibit more positive attitudes towards mental health help-seeking as compared to men, and also displayed more intent to seek help from a mental health

professional than men who had similar levels of mental health concerns (Mackenzie, Gekoski, & Knox, 2006).

Treatment Acceptability

Though individual characteristics are important predictors of help-seeking behaviour among youth, there is also emerging evidence that treatment characteristics are also influencing factors. The idea that treatment variables influence consumer's willingness to participate in treatment is well-conceptualized in treatment acceptability research. Generally, treatment acceptability, is defined as judgments about psychological and medical treatments made by consumers prior to undertaking or experiencing the treatment (Miltenberger, 1990). Treatment acceptability is influenced by several factors including the goals of the treatment, the nature of the treatment procedures, treatment effectiveness, side effects, and time commitment (Carter, 2007; Reimer's et al., 1987 [as presented in Miltenberger, 1990]).

Researchers have found that members of the public see various treatment procedures and therapeutic approaches differently, with some procedures being seen as more acceptable than others. For example, some classroom behaviour management techniques that were perceived as more difficult to implement, such as "planned ignoring of inappropriate behavior", were viewed as the least useful and hardest to implement, and therefore less acceptable than other behavior management strategies (Webster-Stratton, 1989). Other studies have found that parents show preferences for particular treatment approaches used for behaviour modification, preferring to increase favourable behaviour (Jones, Eyberg, Adams, & Boggs, 1998) and use particular "time out" techniques (Frentz & Kelley, 1986). These studies focus on parents' acceptability ratings for behavioural interventions and highlight the importance of considering treatment approach and how it might impact treatment use and consumer satisfaction.

Treatment effectiveness is also an important influencer of treatment acceptability. When research participants are provided with information about the effectiveness of a treatment, individuals rate those with greater effectiveness more positively, assigning them higher treatment acceptability ratings (Perepletchikova & Kazdin, 2006; Von Brock & Elliott, 1987). Some research suggests that treatment effectiveness might have the strongest impact on treatment acceptability ratings after treatment has already begun (Reimers & Wacker, 1988). In addition to treatment effectiveness, treatment side effects, especially negative side effects, also have a profound influence on treatment acceptability ratings; with more aversive side effects (or potential side effects) leading to a decrease in acceptability ratings (Kazdin, 1981). Finally, time commitment is another treatment variable that has been found to influence treatment acceptability ratings, with interventions that require more time to implement being rated less favourably by practitioners than those that require less time to implement (Witt, Martens, & Elliott, 1984).

In addition, research has also found that some of the individual characteristics that influence help-seeking behaviour such as symptom severity, income, race, and stigma, also influence treatment acceptability. Individuals with more severe mental health symptoms have been found to be more likely to view mental health treatments as acceptable, in general, as compared to individuals with less severe difficulties (Elliott, Witt, Galvin, & Peterson, 1984; Frentz & Kelley, 1986; Kazdin, 1980). In addition, demographic factors such as race and socioeconomic status have been linked to differences in treatment acceptability ratings. For example, in one early study, middle-upper middle class parents gave much lower acceptability ratings to medication as a treatment for behavioural difficulties than did low income parents (Heffer & Kelley, 1987). Cooper and colleagues found differences in acceptability ratings of

medication and counselling for depression among African American, Hispanic, and Caucasian research participants (Cooper et al., 2009). In this study, Caucasian participants provided more favorable acceptability ratings for a medication intervention than did Hispanic and African American participants. These researchers also noted that, Hispanic participants were more likely to view counselling as more acceptable than did the other groups. Finally, stigma about mental health treatments has also been linked to treatment acceptability ratings. In one study, researchers examined the stigma (specifically shame) associated with different depression treatments (Givens, Katz, Bellamy, & Holmes, 2007). They compared these stigma ratings to the treatment acceptability ratings of each of the treatments. Researchers found that for mental health counselling, increased perceived stigma was associated with lower treatment acceptability ratings. In addition, the belief that others would support the treatment was positively associated with acceptability for both mental health counselling and prescription drugs (Givens et al., 2007).

Treatment acceptability can be influenced by several factors both regarding the treatments themselves, those who are intended to implement them and those for whom the treatments are intended. Research evidence also suggests the acceptability can also have a profound collateral influence on the extent to which a treatment is implemented as intended, a construct known as treatment integrity (Perepletchikova & Kazdin, 2006). In order to ascertain a treatment's effectiveness, the extent to which the treatment has been implemented correctly must be established. One of the variables that has been demonstrated to increase treatment integrity is treatment acceptability (Allinder & Oats, 1997). Researchers have found that for both practitioners and clients, positive acceptability ratings of treatments are related to increased treatment integrity. For example, teachers who saw math curriculum-based measurement as more acceptable (higher treatment acceptability ratings) were more likely to correctly implement the

procedures than were teachers who gave these measurements low acceptability scores (Allinder & Oats, 1997; Lakin & Shannon, 2015). In addition, psychotherapists were found to be more likely to recommend and correctly implement therapies that they view as acceptable (Gresham 1989 as cited in Perepletchikova & Kazdin, 2006). Treatment acceptability has also been found to influence the clients willingness to stay in and comply with treatment protocol (Elkin et al., 1999). What we can gather from this body of research is that treatment acceptability is not only influenced by several factors but can also have downstream consequences with regards to treatment implementation and outcomes.

The Current Study

The literature reviewed above has demonstrated that there is a significant gap between the need for mental health supports and use of mental health services among youth. Many youths have mental health difficulties, but a much smaller number seek treatment for their problems. This review has detailed a number of client characteristics that appear to be related to help-seeking behaviour, including stigma of mental illness and mental health literacy. In addition, literature was reviewed that identified various treatment characteristics (i.e., relevance, time, and cost) and personal characteristics (i.e., stigma, symptom severity) that also impact acceptability of treatment. Despite some compelling findings demonstrating a relationship between important personal and treatment characteristics and help-seeking, there are some factors that have yet to be sufficiently addressed. Firstly, much of the current literature is ambiguous about how racial, ethnic, and cultural factors influence help seeking and acceptability of treatment. The current literature suggests that these variables are related to help-seeking behaviour, however definitions of these variables across studies are inconsistent or at times, used interchangeably. In the case of treatment acceptability, these variables have been largely understudied. Because of these

limitations, it is difficult to make clear conclusions about how racial, ethnic, and cultural factors impact both help seeking and treatment acceptability outcomes.

A second limitation is that the body of literature examining treatment acceptability has largely focused on behaviour and in-school interventions, as opposed to mental health treatments. This makes it difficult to determine whether the variables identified in the current literature will impact the acceptability of mental health treatments specifically. Finally, a related limitation is that much of the research on treatment acceptability has focused on parental or teacher ratings of behaviour interventions for children. Though valuable in guiding research and treatment development, the conclusions of this body of literature may not be representative of the youth experience with mental health treatment and service use. Given the high incidence of mental health concerns among adolescents, it is important to get their perspective about the treatments offered to them. It is postulated that treatments that are viewed as more acceptable will be more appealing to youth who are suffering from mental health difficulties, thereby increasing help-seeking. By exploring the treatment and personal characteristics that influence youth perceptions of mental health treatment, researchers could develop better understanding of factors that might help minimize the gap between mental health problems and treatment uptake among youth.

The purpose of the current study was to evaluate how treatment and personal characteristics influence adolescents' evaluations of and preferences for various treatments and service options. For the purposes of this study, the focus was specifically on anxiety services, given the high frequency of anxiety problems among adolescents. The services explored were: teacher support, school counselling, mental health counselling, psychiatric treatment, and internet-based counselling. Treatment acceptability was used as a way of measuring the impact

of specific treatment characteristics on adolescents' perceptions. Characteristics of individual participants, including the presence of a mental health concern, mental health service use, mental health literacy, mental health stigma, and gender will also be examined. By evaluating these factors, the current research attempted to answer the following questions: Do adolescents view the acceptability of several proposed anxiety treatment or service options differently? Do individuals in different demographic or personal history categories rate anxiety services options differently? What are adolescents' reasonings for preferring one treatment or service option over others?

It was hypothesized that youth would view some services as more acceptable than others, as reflected in differences in treatment acceptability ratings among the service options. Due to gaps in the literature, it was difficult to determine which of the services would be most acceptable to youth. It was also hypothesized that treatment acceptability ratings for the services would be influenced by the personal characteristic variables (i.e. presence of a mental health concern, mental health service use, mental health literacy, mental health stigma, or gender).

Chapter 3: Methods

Participants

This study recruited 61 participants ages 13-19 who were currently living in metro Vancouver. Participants were recruited from three different schools: an alternative high school (for students with behaviour and mental health concerns), and two independent schools within the Catholic school district. Parental consent and student assent were obtained for all participants. After participating, students were debriefed about the purpose of the study and provided with resources for mental health services, in the event that they found the subject matter upsetting or triggering. With the cooperation of school administrators, participants were given monetary compensation upon completion of the questionnaire.

Recruitment and Administration

All questionnaires were administered at the participants' school. After parental consent and child assent was obtained, all participants from the school assembled and given a brief description and general study instructions. With the cooperation of classroom teachers, participants were exempted from class to complete the questionnaire. Participants completed all study materials and procedures in one session. All participants also completed a demographic questionnaire (gender, age, ethnicity, and mother's education level).

Personal Characteristics to be Evaluated

As described in Chapter 2, there are several personal characteristics that are related to help-seeking for mental health concerns. For this study, the personal characteristics of interest were mental health history, mental illness stigma, and mental health literacy as they have been consistently identified in predicting both help-seeking and treatment acceptability ratings.

Mental health history. To assess the participants' mental health history, two "yes" or "no" questions were asked about the history or presence of a mental health concern and previous experience with mental health treatment ("Do you now, or have you ever had a mental illness such as depression, anxiety, bipolar disorder, suicidal thoughts or schizophrenia?" and "Are you receiving, or have you ever received treatment for a mental illness?").

Mental illness stigma. Participants were asked to respond to questions about the level of stigma they perceived to be attributed to individuals with mental illness using an adapted version of the Perceived Stigma Scale (Na & Chasteen, 2016). Participants rated their level of agreement with statements that express stigmatizing beliefs about mental illnesses (e.g. 'Most people believe that people with mental illnesses could snap out of it if they wanted.') on a 5-point Likert Scale (1=Strongly disagree, to 5=Strongly agree). A full copy of the Perceived Stigma Scale used for this study can be found in Appendix A.

Mental health literacy. A four-item mental health literacy scale was developed for this study. Participants were asked to estimate their own level of perceived mental health literacy, particularly their sense of how knowledgeable they are about mental health and mental illness, including anxiety disorders. They were presented with statements such as "I feel knowledgeable about the symptoms of anxiety" and rate their agreement on a 5-point Likert Scale (1=Strongly disagree, to 5=Strongly agree). A copy of the Mental Health Literacy scale used for this study can be found in Appendix B.

Procedure

The study followed common analogue treatment acceptability study procedures, consistent with those outlined in Miltenberger (1991). In this methodology, participants are presented with a vignette description of a student with a mental health problem, followed by

successive descriptions of five different treatment procedures that could be applied to that problem. Following the description of each treatment procedure, the participant completed a treatment acceptability rating scale. For the purposes of this study, participants were asked to read a vignette about a student with anxiety problems. They then read a description of one of the five services proposed to address the mental health concern, based on best practice descriptions for each service option. After reading the treatment description, the participants were asked to complete the Children's Intervention Rating Profile (CIRP) for that service. These last two steps repeated until the participant completed the CIRP for all five services. The services were presented in two different orders to help minimize order effects on acceptability ratings. Finally, participants answered an open-ended question where they were asked to indicate their preferred treatment among those described and provide reasoning for why it was their preferred treatment. This was done to provide context for participants answers to the CIRP and provide insight into adolescent's perspectives when considering mental health treatments.

Vignette. The vignette presented to participants was developed using the *Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition* (DSM-5) criteria for Generalized Anxiety Disorder. This specific anxiety disorder was chosen due to the broad scope of symptoms that could be relevant to study participants. The following vignette was used for all participants:

> "Sam is a 16-year-old high school student with anxiety. Lately, she has been feeling very worried about getting good grades, her reputation at school, and balancing her school life with her part-time job. Sam often stays up late worrying about these things, making it hard for her to fall asleep. Sam says that sometimes, especially when trying to go to sleep, it's as though she can't control her thoughts. Lately, Sam has noticed that she's been feeling very irritated and has been getting easily frustrated with the people she

loves, even her best friend. She said that she has been feeling tense all the time and has been finding it hard to relax. She feels that her anxiety is a little out of control and has started to impact almost everything."

Mental health services to be evaluated. The McCreary Society's Adolescent Health Survey (AHS) (Smith et al., 2014) identified several sources of support used by youth, including some mental health services options. In the AHS, youth responded to a question asking from which professionals they sought help in the past year (reason for help was not specified). The results of the survey demonstrated that friends, family and teachers were the most frequent individuals from whom adolescents sought help. The survey also noted that youth with mental health concerns who sought help from a teacher were less likely to attempt suicide, suggesting that teachers may be an important resource for mental health support among adolescents.

A total of five service options were selected for the current research based on the information in the AHS about what services adolescents are likely to use, while also considering best practices when treating mental health concerns in the population. The service options were also selected to ensure variability in location and therapeutic approach. Two service options that were selected for evaluation take place in an educational setting: school counsellor and classroom teacher assistance. These two service options have been identified as both common sources of support and potential first responses to mental health services for youth (Rickwood et al., 2007). Two service options that were selected are what could be considered formal medical and mental health services: mental health counselling and psychiatric assistance. These services were selected as these are common sources of psychotherapy and therapeutic medication and may also be the resources to whom teachers and school counselors would refer adolescents. The final service option selected is internet-based mental health counselling as some research has

found that close to 19-40% of adolescents use the internet as a resource for their mental health concerns (Burns, Davenport, Durkin, Luscombe, & Hickie, 2010; Gould, Munfakh, Lubelle, Kleinman, & Parker, 2002).

The descriptions for the services each had two parts 1) strategies for support, and 2) time commitment and setting. Though mental health counsellor and psychiatrist support descriptions contain evidence-based treatments for anxiety, classroom teacher support, school counsellor support, and internet counsellor support do not. Evidence-based practice was not used as a criterion when selecting the mental health services. However, best practices for the various services were considered in development of each of the treatment descriptions. Key elements described for each service were (full descriptions can be found in Appendix C):

Classroom teacher support. Key strategies described included: teaching the student to reduce anxiety and developing an Individual Education plan with in class accommodations to decrease test anxiety. The service was described as having no specific time commitment and taking place in the school setting.

School counsellor support. Key strategies described included: helping the student develop self-regulation through mindfulness, collaboration between home and school, and small-group counselling. This service was described as having no prescribed time commitment and is located in a school setting.

Mental health counsellor support. Key strategies described included: using cognitive behaviour therapy to help the student challenge negative thoughts and teach better coping strategies. This service was described as taking place in a private office outside of school hours, with a time commitment of 8 to 10 sessions.

Psychiatrist support. Key strategies described included: the use of anti-anxiety medication and cognitive behaviour therapy in combination. The setting was described as being in either a hospital or private office, with a time commitment of 8 to 10 sessions and periodic check-ins for medication refills.

Internet counselling support. Key strategies described included: Counsellors connect the student to local resources, not providing direct therapy, helping the student develop their own coping strategies. This service is available over the phone or online between the hours of 6 pm and 12 am PST, and the student may talk to the counsellor for up to 60 minutes.

Treatment acceptability rating scale. The Children's Intervention Rating Profile (CIRP) is a rating scale developed to assess children's perceptions of the acceptability of interventions used by teachers (Witt & Elliott, 1985). It is a 7-item scale that captures whether a given intervention is appealing to children based on the social consequence, severity, generalizability, likeability, usefulness, and reasonableness of the intervention. Participants rated each individual intervention on each of the items on a scale from 1 (strongly disagree) to 5 (strongly agree). The wording of the items was changed in order to fit the services provided in the current study. A copy of the questions used can be found in Appendix D.

Treatment Preference. Participants were asked the following open-ended question: If you were feeling the same way as Sam, what would be your preferred treatment and why?

Analysis

In the present study, the data analysis was conducted in three broad steps: demographic analysis, treatment acceptability analysis, and the personal characteristics analysis. The demographic analysis was conducted by calculating the frequencies, means, and standard deviations for the demographic variables (gender, ethnic origin, mother's education level, age).

This was also done for the personal characteristic variables (history mental health problem, mental health treatment, mental illness stigma, and mental health literacy).

The second analysis tested whether there were significant differences among the total Treatment Acceptability scores that participants assigned to each of the five service options. Before doing this, repeated measures ANOVAs with between subject factors were conducted to determine whether there were differences between treatment acceptability ratings from participants at the three different schools, and between participants who received different treatment presentation orders. Assumptions of normality and sphericity for the sample were also checked. After this, a repeated measure analysis of variance (ANOVA) was used to compare the mean Overall Treatment Acceptability scores for each of the five services and determine whether there were any significant differences among them. Responses to the treatment preference question were tallied to indicate how many participants endorsed each treatment option as their preferred treatment. The request for a rationale for their choice of a preferred treatment yielded written responses from participants. For the purposes of this study, the treatment preference rationale statements from participants who endorsed the most popular treatment were studied further. A thematic analysis was conducted to determine if there were any themes in participants' reasoning for choosing their preferred treatment.

The third analysis tested whether treatment acceptability ratings were related to relevant personal characteristics (mental health history, mental health treatment use, mental illness stigma, mental health literacy, and gender). Where appropriate, a series of within and between subject repeated measures ANOVA's were conducted. In this case, the within subject factor was the Overall Treatment Acceptability ratings for the five service options, and the between subject

factors were the personal characteristics. For variables where relationships were of primary interest, a correlation model was used.

Chapter 4: Results

The primary purpose of this study was to explore and compare the social validity and adolescents' perceptions of five different mental health services. A second purpose was to determine what, if any, participant characteristics influence adolescents' perceptions of mental health services. A third purpose was to determine which treatments adolescents prefer among those presented and what reasoning adolescents provide for preferring one treatment or service option over others. To answer these questions, adolescents across the lower mainland of Vancouver completed the questionnaire where they were asked to answer demographic questions, read a vignette about a girl with anxiety, read descriptions of five different mental health services, and then answer a treatment acceptability questionnaire for each service. The following section presents the analysis of the collected data. Participant demographics, mental health history, mental health literacy, and mental illness stigma are described. Significant differences in treatment acceptability ratings between the five different mental health service options are presented. Additionally, results of analyses to determine whether various participant variables impacted treatment acceptability ratings, and broad themes in treatment preference are described.

Participant Descriptive Statistics

A total of 61 participants completed this study across three locations in the Lower Mainland of British Columbia (7 from an alternative High School; 15 from an Independent High School; and 39 from a second Independent High School). The participants' ranged from 13 to 19 years of age with a mean of 15.2 years. The sample included 37 girls; 23 boys, and 1 gender non-binary individual. Participants came from diverse ethnic backgrounds (26 European; 16 East and Southeast Asian; 4 South Asian; 2 African; 1 Pacific Islander; and 12 with a mixed ethnic

background). There was also diversity in reported maternal education (14 had High School diploma or less; 47 had College Diploma or higher education).

Participants were asked to complete two "yes/no" questions to gather information about their mental health history. The first question was whether they currently have (or have ever had) a mental illness such as depression, anxiety, bipolar disorder, schizophrenia or suicide. The second question was whether they have ever received mental health treatment. All 61 participants completed the questions. Of the 61 participants 29 endorsed having ever had a mental illness, and 14 of 61 participants have ever received treatment for a mental illness.

Scale Psychometrics

For this study, two scales were adapted, and one was developed to gather information about three variables of interest: Perceived Stigma, Mental Health Literacy, and Treatment Acceptability. Because these scales were adapted or developed for the current study and used in new ways, it was appropriate to investigate the reliability of each of the scales. Reliability was investigated using internal consistency to analyze the extent to which items within each scale contribute to the measurement of the construct.

Perceived stigma. This scale was adapted from a Depression Stigma Scale (Na & Chasteen, 2016). The language in the scale was adapted to reference mental illness stigma in general, rather than depression specifically. The original scale contains both perceived and personal stigma questions. For this study, only the perceived stigma questions were included. The perceived stigma scale used in the study was comprised of nine items, and participants responded using a 5-point Likert scale (1-strongly disagree; 2-disagree; 3-neither agree nor disagree; 4- agree; 5-strongly agree). A composite score from responses was calculated for each participant, denoted as "total perceived stigma". The range of scores possible for the composite

was 9 to 45. The mean composite score for the sample was *M*=26.22; *SD* = 5.68. The scale had acceptable internal consistency (α = 0.79).

Mental health literacy. This scale was developed for this study to measure the extent to which participants felt like they were knowledgeable about mental illness and anxiety symptoms and treatments. It was comprised of 4 items, and participants responded using a 5-point Likert scale (1-strongly disagree; 2-disagree; 3-neither agree nor disagree; 4- agree; 5-strongly agree). A composite score from responses was calculated for each participant, denoted as "total mental health literacy". The range of scores possible for the composite was 4 to 20. The mean composite score for the sample was *M*=12.74; *SD*= 3.52. The scale had good internal consistency (α =0.85).

Treatment acceptability. The Children's Intervention Rating Profile (CIRP) was the scale used to measure participants treatment acceptability ratings for each of the five treatments of interest (classroom teacher support, school counsellor support, mental health counsellor support, psychiatrist support, internet counselling). It is comprised of seven items, and participants responded using a 5-point Likert scale (1-strongly disagree; 2-disagree; 3-neither agree nor disagree; 4- agree; 5-strongly agree). A composite treatment acceptability score for each treatment was calculated. The range of possible scores for each treatment composite was 7 to 35. The internal consistency of the scale for each treatment was acceptable: classroom teacher support, *M*=25.30, *SD*=5.02 (α =0.86); school counsellor support, *M*=24.52, *SD*=5.32 (α =0.87); mental health counsellor support, *M*=25.23; *SD*=4.43, (α =0.82); psychiatrist support *M*=19.75, *SD*=5.17, (α =0.85); and internet counsellor support, *M*=20.78, *SD* = 6.02, (α =0.88). All scales in the study demonstrated satisfactory reliability, sufficient to allow total scores to be used.

Order effects

All participants read a description of each treatment followed by completion of the treatment acceptability rating scale. The presentation order of the treatments had two variations. The first variation presented the treatments in the following sequence:1) internet counselling support 2) school counsellor support 3) mental health counsellor support 4) psychiatrist support 5) classroom teacher support. The second presented the treatments in the following sequence: 1) classroom teacher support 2) school counsellor support 3) mental health counsellor support 4) psychiatrist support 5) internet counselling support. This was done to help determine the extent to which presentation order might affect treatment acceptability ratings. A repeated measures ANOVA with the treatment acceptability ratings for classroom teacher support and internet counselling support with presentation order as a between subject factor was performed to determine whether there is a significant difference in treatment acceptability scores between individuals who received different treatment presentations.

The results of the ANOVA showed that there was no significant interaction $F(1, 58) = 2.65$, $p>0.05$ or main effect of presentation order for $F(1, 58) =0.70$, $p>0.05$. Means are displayed in Table 1. Results of this analysis indicate that presentation order did not have a significant impact on participants' treatment acceptability ratings. This result allowed the two sets of ratings to be combined.

Table 1. Results of Repeated Measures ANOVA with Presentation as between-subject factor.

			Treatment Acceptability Score	
Treatment	**Presentation**	***n***	***M***	***SD***
Classroom Teacher Support	1 (last)	31	24.84	6.03
	2 (first)	29	25.79	3.70
Internet Counsellor Support	1 (first)	31	21.97	4.81
	2 (last)	30	19.43	6.06

Cohort Effects

Study participants were students at three different schools. These schools had different curriculum and philosophies about mental health and mental health awareness. These differences could have an impact on participants' beliefs about stigma, mental health literacy, and their opinions about mental health treatment, thus the study design accounted for the three groups of students as members of three different cohorts. Because of these potential differences, a series of ANOVA's were conducted to determine the presence of cohort effects on our variables of interest (stigma, mental health literacy, and treatment acceptability).

Location x stigma. A one-way ANOVA was conducted to determine whether there were differences in total perceived stigma scores between participants at the three different locations. The main effect of location was significant $F(2,58) = 4.40$, $p < 0.05$. Students in the second Independent High School *(M* = 24.72, *SD* = 5.67) reported significantly less perceived stigma than did students at the first Independent High School (*M* = 28.40, *SD* =4.66) and the Alternative School (*M* = 29.93, *SD* = 5.18). The scores from participants at the second Independent School indicate that they "disagreed" more with the idea that the general population holds stigmatizing belief about those with mental illnesses. The scores from participants at the first Independent School and the Alternate School are more ambivalent and indicate that participants at these school neither agreed nor disagreed with the belief that the general population holds stigmatizing beliefs about those with mental illness.

Location x mental health literacy. A one-way ANOVA was conducted to determine whether there were differences in total mental health literacy scores between participants at the three different locations. The main effect of location was not significant $F(2, 58) = 1.41$, $p > 0.05$. Students in the first (*M*=12.07, *SD*=2.66) and second independent High Schools (*M*=12.64,

SD=3.84), and the Alternative High School (*M*=14.71, *SD*=2.87) did not differ significantly on the mental health literacy scale. The mean scores from participants fall at the mid-point on the scale suggesting that overall, participants did not hold strong beliefs about their own mental health literacy and that they neither agreed nor disagreed about whether they had knowledge about anxiety or mental health.

Location x treatment acceptability. A repeated measures ANOVA was conducted with Location as a between subject factor, to determine whether treatment acceptability ratings for each treatment differed between the participants at each of the three different locations. No significant interaction $F(5.99, 170.65) = 1.27$, $p > 0.05$ or main effect $F(2,57) = 1.23$, $p > 0.05$ of location was found, indicating that treatment acceptability ratings did not differ among groups at different locations.

Table 2. Mean Treatment Acceptability Ratings by Location.

			Treatment Acceptability Score	
Treatment	**Location**	***n***	***M***	***SD***
Classroom Teacher Support	Alternative High School	6	26.17	4.92
	Independent School 1	15	26.13	3.68
	Independent School 2	39	24.85	5.51
School Counsellor Support	Alternative High School	7	25.50	5.40
	Independent School 1	15	24.27	5.44
	Independent School 2	39	24.33	5.35
Mental Health Counsellor Support	Alternative High School	7	26.83	4.26
	Independent School 1	15	26.33	2.61
	Independent School 2	39	24.44	4.90
Psychiatrist Support	Alternative High School	7	23.08	5.16
	Independent School 1	15	16.47	3.93
	Independent School 2	39	20.49	5.15
Internet Counsellor Support	Alternative High School	7	21.42	4.8
	Independent School 1	15	20.53	6.36
	Independent School 2	39	20.71	6.25

Treatment Acceptability

This study sought to answer the following research question: are there differences among adolescents' treatment acceptability ratings of five different anxiety services? A repeated measures ANOVA was conducted to determine whether or not there were significant differences between treatment acceptability ratings for five mental health services of interest (classroom teacher support, school counsellor support, mental health counselling, psychiatric support, and internet counselling support) for the whole sample. Before conducting the analysis, assumptions of normality and sphericity were checked, and appropriate corrections were made when necessary. For this model, Mauchly's test indicated that the assumption of sphericity had been violated $\chi^2(9) = 37.55$, $p<0.01$, therefore the Greenhouse-Geisser correction was applied.

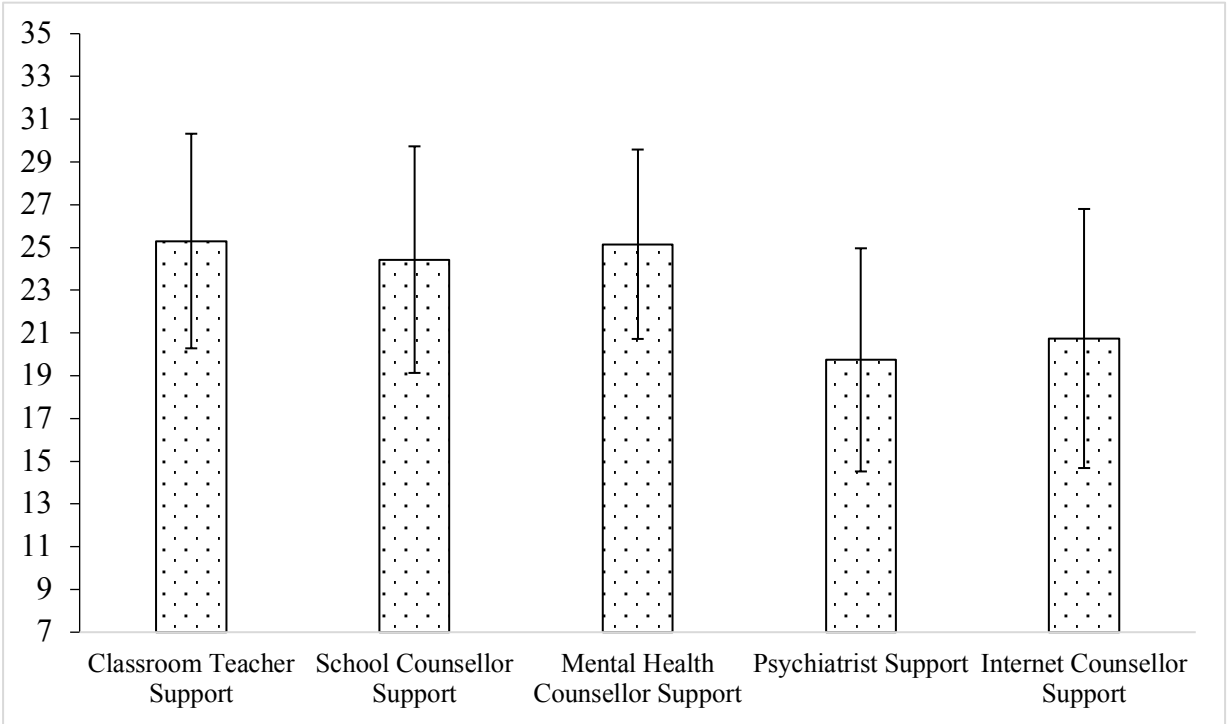
The results showed that the mean treatment acceptability ratings for each treatment were higher for classroom teacher, school counsellor support, and mental health counsellor support, than for psychiatrist and internet counsellor support. The means for the first three treatments indicated that participants viewed these treatments more positively, and they viewed psychiatrist and internet counsellor support more negatively. There was a significant main effect of treatment on treatment acceptability ratings, $F(3.12, 184.21)=15.54$, $p<0.01$, $\eta^2 = 0.21$. Specifically, classroom teacher support, school counsellor support, and mental health counsellor support were rated significantly higher than psychiatrist and internet counselling support. Means are reported in Tables 3 and visually represented in Figure 1. A report of the pairwise comparisons for the treatment means can be found in the Appendix E.

Table 3. Mean Treatment Acceptability Ratings for Each Treatment.

		Treatment Acceptability Score	
Treatment	***n***	***M***	***SD***
Classroom Teacher Support	60	25.30	5.02

School Counsellor Support	60	24.43	5.30
Mental Health Counsellor Support	60	25.15	4.43
Psychiatrist Support	60	19.74	5.22
Internet Counsellor Support	60	20.74	6.06

Figure 1. Means (Bars) and Standard Deviations (Whiskers) of Treatment Acceptability Ratings.



In addition to looking at the differences among treatment acceptability ratings, the study also investigated participant characteristics that may have impacted treatment acceptability ratings. Based on the literature review, five characteristics were identified as possible factors that might have impacts on treatment acceptability ratings: mental illness stigma, mental health literacy, mental health history, treatment history, and gender. In order to determine the impact of

these variables on treatment acceptability ratings, several statistical analyses were performed and results of these analyses reported below.

Perceived stigma and mental health literacy. A Pearson correlation was computed to determine the relationship between perceived stigma and treatment acceptability ratings; and mental health literacy and treatment acceptability ratings. The results of the analyses show that there is a moderate to weak positive relationship between perceived stigma and two of the five treatments, mental health counselling ($r = 0.36$, $p < 0.01$) and psychiatric support ($r = 0.26$, $p < 0.05$). Mental health literacy was not significantly correlated with treatment acceptability ratings for any of the five treatment variables.

Mental health history. A repeated measures ANOVA with mental health history as a between subject factor was performed to determine the effect of mental health history on treatment acceptability ratings. No significant interaction F (3.11, 180.53) = .18, $p > 0.05$ or main effect F (1, 58) = .63, $p > 0.05$. of the presence (current or past) of a mental illness was found, indicating that treatment acceptability ratings from individuals with and without a history of mental illness were in general the same.

Mental health treatment. A repeated measures ANOVA with mental health treatment as a between subject factor was performed to determine the effect of mental health history on treatment acceptability ratings. No significant interaction F (3.11, 180.76) = .33, $p > 0.05$ or main effect F (1,58) = 0.02, $p > 0.05$ of having received treatment for a mental illness was found. This indicates that treatment acceptability ratings from individuals who have and have not received treatment for a mental health condition did not differ.

Gender. A repeated measures ANOVA with gender as a between subject factor was performed to determine the effect of mental health history on treatment acceptability ratings. No

significant interaction F (6.89,179.17) = 0.62, p>0.05 or main effect F (2,57) = 0.19, p >0.05 of gender was found, indicating that treatment acceptability ratings did not differ among gender groups.

Preferred Treatment

Following their acceptability ratings, participants were asked to indicate their preferred treatment of the five presented. Several participants endorsed more than one preferred treatment. For the purposes of the analyses described below, the first one they listed was taken as their primary choice. Mental health counselling was endorsed as the primary preference for 24 of the 59 participants who completed the question. A summary of the number of participants who preferred each treatment can be found in Table 4.

In addition to preferred treatment, we were interested in whether treatment acceptability ratings matched treatment preference. By looking at this, we could validate the use of treatment acceptability as a way of measuring of treatment preference. Generally, participants' treatment acceptability ratings corresponded with their preferred treatment. For example, all individuals (N=12) who indicated classroom teacher support as their preferred treatment modality also gave it the highest treatment acceptability rating. For the 13 participants who indicated school counsellor support as their preferred treatment modality, 9/13 participants gave it the highest rating. For the 24 participants who endorsed mental health counsellor support as their preferred modality, 16/24 participants gave it the highest rating. For the 5 participants who indicated psychiatrist support as their preferred treatment modality, 0/5 gave it the highest rating. Finally, for internet counselling support, 4/5 participants gave it the highest treatment acceptability rating.

Table 4. Treatment Preferences

Treatment	Number of Participants who preferred this treatment
Classroom Teacher support	12 (20.33%)
School Counsellor Support	13 (22.03%)
Mental Health Counsellor Support	24 (40.68%)
Psychiatrist Support	5 (8.47%)
Internet Counselling	5 (8.47%)
Total	59

Themes. Participants were encouraged to write about why they chose their preferred treatment to allow the researcher to explore factors that might influence treatment preference beyond those included in the treatment acceptability measure and participant characteristics reported above. A brief thematic analysis was undertaken for the participant responses related to mental health counsellor support as the preferred treatment, as it was the most frequently endorsed treatment preference. Results of the thematic analysis are presented below, including illustrative quotations from transcripts of participants' written responses.

Therapeutic Approach. The first broad theme that emerged was therapeutic approach. Twelve participants wrote they found the notion of changing negative thoughts into positive thoughts and teaching relaxation techniques to be appealing. For example, one participant wrote:

> "I feel like it would be the most reassuring option. To be able to challenge negative thoughts and to have someone feel and see what I have trouble with would be the most helpful to me."

A sub-theme that emerged within the broad theme of therapeutic approach, was anti-medication sentiments. Eight participants who endorsed mental health counselling as their preferred treatment expressed concerns about using psychotropic medication, for various reasons ranging from preference of holistic methods, to distrust of pharmaceutical companies. This was

their reason for choosing mental health counsellor support over psychiatrist support. One participant wrote:

> "I wouldn't go on an anti-anxiety medication if I were Sam, not right away. medications effect everyone differently and it could potentially make her feel worse. There has been medications that have been said to be safe but were not. The pharmaceutical companies are known to falsify studies and I just don't completely trust medication. First I would try to exercise, eating well, vitamins, or any other natural anxiety reducers"

Several of the participants noted that medication should be used as a last resort but that other methods should be attempted first, for example:

> "I don't think my first option should be going on medication. If I still struggled really badly with anxiety after many sessions with the mental health counsellor support, then I would go to the psychiatrist."

Another sub-theme that emerged within this broad theme was the expertise of the service provider. Three individuals indicated that the mental health counsellor support was desirable as they believed they had the most expertise in mental health. For example:

> "I would prefer mental health counsellor support because I can trust those people as they have spent there entire lives dealing with people with mental health issues."

Anonymity. The second broad theme that emerged was the notion of anonymity. Six participants expressed how a mental health counsellor would provide a private and safe space for them to work through their anxiety concerns. On participant noted:

> "I like this one because it helps you learn about your anxiety and help deal with it in a private and comfortable setting."

Related to this, was the sub theme of separation from school. Six participants expressed the fact that they liked that the mental health counsellor was separate from their school. In addition, some wrote about how they would feel embarrassed if their peers saw them getting help, and that they would not want to participate in small-group counselling. This is exemplified by the following quotes:

> "Because I would prefer to deal with this problem with someone outside my school life. This is because I wouldn't feel comfortable opening up fully with peers and teachers."

> "I would personally prefer the Mental Health Counsellor Support method because the counsellor would be separate from school so I wouldn't have to worry that other friends and peers might find out and make assumption."

A third sub-theme that emerged was the notion of objectivity. Four participants mentioned how a mental health counsellor could be more objective than an individual who already knows them and would provide unbiased advice. Similarly, they mentioned how discussing their anxiety with an individual who already knows them might be intimidating. For one participant, this was their main reason for choosing mental health counselling:

> "I would prefer the mental health counsellor support because I think it helps when you can talk to someone who doesn't really know you that well. They would give advice or suggestions that would be unbiased and helped other people with anxiety. Sometimes it helps to have someone that is willing to listen to the things you are struggling with that you don't know as well. I feel its better not to talk to your parents because they would make you feel worse about what your going through because they care too much."

Previous experiences. Another theme that emerged was that previous experience informed participant's opinions about mental health counselling. This included independent research on therapeutic techniques, and personal experience receiving counselling.

> "I would use the mental health counsellor support. I have research cognitive behaviour therapy and seen how helpful it is for people."

One participant endorsed counselling as the most favourable option, despite the fact that she has had negative experiences in the past.

> "Although counsellors are very helpful, I personally don't like them. I think I am capable of caring more for myself because I have a good connection with myself. The same cannot be said about everyone which is why mental health is hard to address."

Time commitment. Two participants mentioned the time commitment required for mental health counselling support, though both had differing opinions. One of the participants mentioned how approach was shorter and only lasts "a couple weeks." The other noted that even though you have to dedicate more time to counselling than in school programs, "it's worth it."

Summary

In sum, data for this study was collected from a heterogeneous sample of adolescents, with variability in gender identity, ethnicity, and maternal education. In addition, 48% of participants endorsed having ever had a mental illness, and 23% endorsed having ever received treatment. The scales that were adapted and developed for this study were determined to have acceptable reliability. There were no significant differences from participants who completed different survey forms, and no significant difference in treatment acceptability ratings between participants at the three different locations.

Results of the repeated measures analysis of variance of treatment acceptability ratings among mental health services were significant. Specifically, classroom teacher support, school counsellor support, and mental health counsellor support were rated significantly or positively than psychiatrist or internet counselling support. Subsequent analyses showed that mental health literacy, gender, and mental health history were not significantly related to treatment acceptability ratings. However, perceived stigma was shown to be significantly positively correlated to ratings of mental health counselling and psychiatrist support only. Participants were also asked to answer an open-ended question about what their preferred treatment of the five would be, if they had anxiety like the student in the vignette that was provided. The majority endorsed mental health counselling as their preferred treatment. A thematic analysis was conducted of rationale statements provided by participants who endorsed mental health counselling as their preferred treatment, and four broad themes emerged: therapeutic approach, anonymity, pervious treatment experience, and time commitment. Subthemes within each broad theme emerged, demonstrating the diverse treatment constructs that adolescents consider when choosing a preferred treatment.

Chapter 5: Discussion

The purpose of this study was to investigate the acceptability of anxiety services to adolescents, potential characteristics of youth that may be related to differences in how they view the options for treatment and support available to them, and adolescents reasonings for preferring some treatments over others. The services explored were: classroom teacher support, school counsellor support, mental health counsellor support, psychiatrist support, and internet counsellor support. Participants were given a questionnaire that asked questions about their ethnic background, gender, mental health history, mental illness stigma, and mental health literacy. They then read a vignette about a student with anxiety and descriptions of the five different mental health services. They completed a treatment acceptability scale for each of the five services, and finally, were asked an open-ended question about what their preferred treatment would be and why that might be their preferred treatment (if they were feeling the same way as the student in the vignette).

These data were analyzed in order to answer the following questions: Do adolescents view the acceptability of several proposed anxiety treatment or service options differently? and Do individuals in different demographic or personal history categories rate anxiety services options differently? The hypotheses of the research were that youth would view some services as more acceptable than others, and that these differences would be reflected in the treatment acceptability ratings. Furthermore, it was hypothesized that treatment acceptability ratings for the services would be influenced by the personal characteristics of the participants (i.e. gender, presence of a mental health concern, mental health literacy, or stigma). Due to gaps in the literature, more specific hypotheses about directionality of the preferences could not be generated. The goal of the following section is to discuss the analysis and results of the study

data from a clinical perspective, and to describe both the generalizability of the results and their utility in school psychology practice. In addition, the limitations of the study will be outlined, along with recommendations for future research in the area of treatment acceptability.

Study Results

Data was collected from adolescents across three locations in the Lower Mainland of British Columbia, including an alternative high school for youth behaviour and mental health concerns. Analysis showed that there were no significant differences between individuals at the three different locations, and therefore, the sample could be analyzed as a whole. The participants in the sample had a mean age of 15.2 years, which is similar to the age of the student in the vignette that the students read (16 years). The participants came from diverse ethnic backgrounds with European (42%) and East/Southeast Asian (26%) ethnicities being the most endorsed. This is similar to the demographics of the Greater Vancouver per the 2016 Census (49% European and 31% East/Southeast Asian) (Statistics Canada, 2017). More participants identified as girls(61%) than boys (38%) or non-binary (1%). Finally, participants reported their mother's highest level of education, which showed that the majority of participants (77%) had mothers who had received at least one postsecondary certificate, diploma, or degree (i.e. college certificate, trade/professional school, or university degree). Though we were not able to find data on mother's specifically, only 58% of women in the Lower Mainland of Vancouver were reported to have completed a post-secondary education program (Statistics Canada, 2017). Despite some discrepancies, in general, participants in this study appear to be a reasonably ethnically representative sample of the general population of adolescents within the Lower Mainland. However, it is important to note that the majority of participants in the study attended Catholic Independent Schools, which may result in cultural differences between the participants

in our study and the general population. Therefore, the results of this study should be interpreted with caution.

Mental health. As previously mentioned, approximately 10% to 20% of Canadian youth have a mental illness (Canadian Mental Health Association, 2016). In B.C., 22% of females, and 15% of males reported having at least one mental illness (Smith, et al. 2014). In terms of service use, only 20% of youth who have a mental health concern received appropriate professional services (Fast Facts About Mental Health, 2018). In this study, participants were asked to identify if they currently have, or have ever had a mental illness, and if they have ever received treatment for a mental health concern. The results showed that 48% of participants endorsed having ever had a mental illness. The rate of reporting in this study is greater than what is reported to be the national and provincial prevalence of mental health concerns among youth. One possible reason for this elevated rate is that 13% of our participants were from an alternate school which selects students with mental health and behaviour concerns, which likely impacted the percentage of mental health concerns in our sample. Despite this high level of reported incidence of mental health concerns in the sample, 23% of participants had ever sought treatment for a mental health concern. Adolescents in the study sample are similar to those in the general population, in that the majority do not appear to be seeking help for their mental health concerns.

Stigma. Past research has demonstrated increased mental health stigma is associated with decreased help-seeking for mental health concerns (Corrigan & Patrick, 2004). Specifically, mental illness stigma can have a negative impact on an individuals' self esteem and social opportunities (Corrigan & Patrick, 2004). Consequently, individuals with mental health concern may be afraid of the negative impact that admitting their mental illness could have on their social and professional lives (Clement et al., 2014; Nadeem et al., 2007; Rickwood, Deane, Wilson, &

Ciarrochi, 2005; Sirey et al., 2001). This potential impact is also known as perceived stigma, or the belief that others hold stigmatizing thoughts about a group or individual based on their characteristics. Some research has found that perceived mental illness stigma is associated with lower treatment acceptability ratings for mental health counselling (Givens et al., 2007). Because of these findings in the literature, it was important for this study to establish the relationship between stigma and the construct of interest, treatment acceptability. Analysis of the relationship between stigma and treatment acceptability revealed a significant, but small, positive correlation between both psychiatrist and mental health counsellor support and acceptability ratings. This positive correlation suggests that as adolescents' stigmatizing beliefs increased, they viewed both of these specific services as more acceptable.

These results run counter to the results in the literature. One explanation for this is that mental health counselling and psychiatrist services are not provided in school and could have been perceived as offering more anonymity than classroom teacher or school counsellor support as described in the current study. One of the broad themes that emerged from the open-ended question was that anonymity, specifically having access to a private space and distance from school were important for those that chose mental health counselling as their preferred treatment method. This notion is consistent with the literature finding that one of the reasons why individuals with mental illness avoid mental health services is due to the social consequences that could occur with admitting they have a mental illness (Corrigan & Patrick, 2004). The more perceived stigma a student endorses, it is likely that anonymity in service provision would help reduce the fear of others holding negative thoughts about them. Therefore, any service that provides such anonymity would likely be more acceptable than those where individuals who know the adolescent personally might see them receiving mental health services (ex. School

counselling and classroom teacher support). Though significant, the relationship between perceived stigma and mental health counsellor and treatment acceptability ratings was weak, and therefore, may not be clinically relevant.

Mental health literacy, mental health history and gender. A review of the literature had indicated that mental health literacy, mental health history (presence of a mental health problem, and plus treatment experience) and gender, were factors related to help-seeking behaviour, (J. Burns & Rapee, 2006; Cauce et al.,2002; Elliott, Witt, Galvin, & Peterson, 1984; Mackenzie, Gekoski, & Knox, 2006 Rickwood et al., 2007). Because there were gaps in the literature about their relationship with treatment acceptability, the current study explored the possibility of a relationship between these factors and treatment acceptability ratings. Studies have found that individuals who recognize their mental health concern and are knowledgeable about mental health symptoms were more likely to seek help than their counter parts (Gulliver et al., 2010). These concepts are related to the mental health literacy and mental health history variables that were assessed in the present study. However, in this study the results did not support a significant relationship between mental health literacy and mental health history, and treatment acceptability ratings. This was surprising, given that the literature had established a relationship between these factors and help-seeking behaviour. One reason why treatment experience may not have been significantly related to treatment acceptability ratings is that there were only 14 participants who had ever received mental health treatment. Furthermore, the nature of the treatment they have received is unknown. Therefore, it is possible that there was not enough power in the design of the study to garner significant results in this area, and that the services described in the study may not have been the same as those experienced by the participants.

Gender was another factor that was demonstrated to have a relationship with help-seeking behaviour in the literature. Specifically, females have been found to be more open to seeking help for mental health concerns than males (Vogel et al., 2011). Because of this, it was hypothesized that this factor would have an impact on treatment acceptability ratings. However, no significant relationship between the factors was found. As was the case with mental health literacy and mental health history, the size of the study sample may not have been enough to garner enough power for significant results. Another factor may be that the boy and girl participants in this study may have received similar educations with regards to mental health and the importance of seeking help for mental health concerns. Mental health education was an important initiative in all three schools where this data was collected. This education may be having an impact on gender stereotypes in mental health, leading to more balance in help-seeking between the genders in these locations.

Treatment acceptability. As previously mentioned, the primary purpose of this study was to evaluate adolescents' treatment acceptability ratings of five different mental health services. The services selected in this study were classroom teacher support, school counsellor support, mental health counsellor support, psychiatrist support, and internet counsellor support. These services were selected due to their variability in treatment setting, therapeutic approach, anonymity, and time commitment, which are salient factors in treatment acceptability ratings. For this study, participants answered a seven-item treatment acceptability scale for each of five treatments. Their answers were summed to create an overall treatment acceptability score for each service. The possible range of scores was 7 to 35. The results demonstrated that classroom teacher, school counsellor, and mental health counsellor support were rated significantly higher on treatment acceptability ratings than either psychiatrist or internet counsellor support.

The current research that involves direct comparison of treatment acceptability ratings for mental health services is limited. However, there is some literature that is consistent with the findings in this study. One study that found that psychopharmacology was consistently rated as less acceptable than other forms of interpersonal therapy for depression (Banken & Wilson, 1992). This is consistent with the results of the current study with psychiatrist support being rated significantly lower than three of the four services that did not have psychopharmacology mentioned as a therapeutic approach. This supports the notion that medication tends to be viewed less favourably than other forms of mental health service. Another study found that participants viewed internet-based treatment for anxiety and depression as acceptable, but they generally preferred face-to-face therapy to internet therapy (Gun, Titov, & Andrews, 2011). This is similar to the results found in this study. Of note is the fact that internet-based treatment in the Gun et al. (2011) study was presented to participants as websites that "directly provide treatment for anxiety and depression" (p.260). By contrast, in this study internet counselling was described more as a resource finder without direct therapy. This difference in definition may be relevant to the finding that participants in this study rated internet counselling more unfavourably than other treatments. However, the general finding that internet counselling was less favourable than face-to-face counselling is consistent in both studies.

Though statistically significant, clinical difference in mean treatment acceptability scores ratings for each service among the treatment options is minimal. The mean ratings for psychiatrist and internet counselling support translates to a Likert score of 2.8 and 3.0 respectively. What this indicates is that participants had negative to neutral feelings towards these services and did not view then as completely unacceptable. However, classroom teacher (3.6), school counsellor (3.5), and mental health counsellor support (3.6) were rated slightly

more favourably but their ratings still reflect neutral to slightly positive feelings towards these services. Therefore, although there was a statistically significant difference between treatment acceptability ratings for the different treatment options, clinically, the difference in participant ratings is minimal.

Clinical Implications

The ultimate goal of this study was to increase practitioner knowledge of adolescents' perceptions and opinions of mental health services. By increasing their understanding of adolescents' perceptions, school psychologists and other mental health professionals can make referrals that are likely to be viewed as acceptable by their adolescent clientele. The downstream effect that this could have is increased service uptake among youth who are experiencing mental health difficulties. The results of this study have several implications for clinical practice that could improve the experience for youth receiving mental health services, or who are being referred to mental health services by school professionals.

In addition to responding to the treatment acceptability scales, participants were also asked to respond to an open-ended question about what their preferred treatment would be (if they felt like the student in the vignette) and why. The responses to this question likely provide some of the most utility for school psychology practice. Mental health counselling was the most endorsed preferred treatment, followed by school counsellor and classroom teacher support, while only a minority of subjects endorsed psychiatrist and internet counselling support as their preferred method. These results closely correspond with the overall treatment acceptability ratings provided by these same participants. In looking at reported rationales for why participants chose mental health counselling as their preferred treatment, four broad themes and several subthemes emerged. Therapeutic approach, and especially anti-medication sentiments and

service provider experience were important to participants. In this discussion, it is important to note that the description of mental health counselling that participants received used cognitive behaviour therapy as the primary therapeutic method, while psychiatrist support was described as a combination of CBT and medication. Many participants wrote about how they liked the principles of CBT, such as challenging negative thoughts. However, many did not support the use of medication as a first approach to treating anxiety. In light of these findings, school psychologists in clinical practice may want to explore the beliefs and desires of their adolescent clients before making referrals to community mental health services. If their client holds anti-medication beliefs a referral to a psychiatrist may need to be prefaced with psychoeducation about the broad role that psychiatrists can play and that they do not always prescribe medication.

A second theme that emerged was anonymity, and specifically having a private and safe space to discuss their concerns, separation from school, and discussing their concerns with an objective third party. This is especially relevant to school psychology practice, as some research reports have shown that school psychologists do not make many referrals to mental health services outside of school (Villarreal, 2018). However, what the adolescents in this study are endorsing is that they prefer services that are outside of school, and with practitioners who can be objective when helping them cope with their mental health concerns. In this study, the school counsellor description included small group anxiety counselling. This may have impacted the participants opinions, leading them to view school counsellor support as less anonymous than mental health counselling. This notion is consistent with a study that found that participants preferred individual to group CBT when given the choice (Sharp, Power, & Swanson, 2004). In practice, there is the possibility that school counsellor support can be provided individually, which is important to consider in reviewing these results. However, what can be inferred is that

in school group counselling may not be acceptable to adolescents and could prevent them from seeking in school support. Therefore, when school counselling is provided, adolescents may prefer direct, individual support, and that anonymity should be prioritized.

The third major theme that emerged was previous experience with mental health counselling, including receiving both direct support and independent research on CBT. One adolescent that endorsed mental health counselling as their preferred treatment, admitted that they themselves had had a negative experience with a counsellor. Although they objectively thought it was the best option, subjectively they would prefer not to use this option. This poses a challenge for clinical practice, as adolescents may understand why a service is beneficial but personal experiences may impede their willingness to partake in such a treatment. This emphasizes the importance for school psychologists to build rapport and have a thorough understanding of their clients' perceptions and pervious experiences with different mental health services. The fourth theme that emerged was time commitment. Though not a dominant theme, two participants noted that time was important to them. One participant in particular liked how CBT is limited to twelve sessions, making it seem more feasible. In practice, this is important to consider as adolescents with busy schedules may view shorter forms of therapy as more acceptable.

What we can gather from these results is that adolescents' perceptions of mental health services are multifaceted. However, treatment acceptability alone is not enough to fully understand adolescents' preferences for mental health services. In fact, though mental health counselling was endorsed the most frequently as a preferred treatment, classroom teacher support had a higher overall treatment acceptability rating. Therefore, when making referrals for

adolescents it is important to ask them about their preferences for a given a choice of treatments and understand their perceptions of those treatments.

Limitations

The primary limitation of this study is the small sample size. Though there was variability in gender, ethnicity, and mental health history, the number of participants in each of these groups was under 50. Future research that would explore the treatment acceptability of various mental health services should consider increasing the sample size and including more individuals who have received mental health services. A second limitation of the study is the limited types of services described. Counselling and mental health services at large are diverse, and there are many types of in school and community-based resources available. For this study we wanted to be specific in the approaches we described, in order to have participants rate the acceptability of the therapeutic approaches rather than just the location and service provider. However, in doing so we necessarily had to omit several different therapeutic approaches. This hinders the generalizability of our findings. Finally, the third most important limitation of this study is the fact that the focus was on services to treat anxiety specifically, rather than mental health concerns in general. To increase the generalizability of the study, more diversity in socio-economic status and as well as increasing the number of participants who attend public high schools, as opposed to independent and alternative environments, is recommended.

Research Implications

This study has several implications for future research. The major implication is that treatment acceptability remains an important factor in reviewing mental health services and that youth, though underrepresented in the literature, do rate services differently on treatment acceptability measures. This offers a new avenue of research for mental health professionals

working with youth, and who want more insight into how to increase service use. Future studies may want to consider evaluating adolescents' perceptions of different approaches such as motivational interviewing, dialectical behaviour therapy, and phone counselling. Furthermore, other studies may want to consider informing participants about the evidence of effectiveness for the presented services, which has been indicated as a predictor of treatment acceptability ratings (Kazdin, 1981). It would be interesting to determine the extent to which factors such as research evidence impact adolescent's perspectives and ratings of various mental health services.

This study also demonstrated the importance of qualitative measures when evaluating adolescent's perceptions of mental health services. The treatment acceptability survey used was brief and easy to understand, but it was not treatment specific. A consequence of this was that some therapeutic elements specific to some services (i.e. medication) could not be evaluated for their acceptability using a quantitative approach. However, by asking participants to write about their preferences and why, we were able to uncover opinions that were not readily accessible in a questionnaire format. Future researchers may want to consider interviewing adolescents to get more detailed accounts of their perceptions about various mental health services, what (if anything) they have learned about mental health services, and further unpack the relationship between stigma and service use. Similarly, researcher may want to consider making treatment acceptability scales that are treatment specific, to capture the unique elements of each treatment and have them evaluated using a quantitative methodology.

The literature is still inconsistent about the impacts of ethnicity and cultural upbringing may have on opinions about mental health services. Few studies have explored these concepts among adolescents' opinions specifically. In multicultural societies such as Canada, factors such as cultural upbringing are important to consider in psychological practice. Therefore, this is an

area that warrants future research, given the implications it could have on clinical practice and practitioner bias.

Conclusion

Despite the limitations, this study provided some information about the adolescent perspective on various anxiety services. This study was able to demonstrate that there is a significant difference in how adolescents rate different services on treatment acceptability measure, with classroom teacher, school counsellor, and mental health counsellor support rated more highly than psychiatrist or internet counsellor support. Though statistically significant, the ratings were similar across all service options, and did not show much clinical difference. However, when asked to choose a preferred treatment, the majority of participants chose mental health counselling. The primary themes that emerged when looking at why adolescents chose this treatment were the therapeutic approach, anonymity, previous experience with counselling, and time commitment. Finally, while stigma was shown to have some weak positive relationship with mental health counsellor and psychiatrist support ratings, no other personal characteristics did.

In terms of school psychology practice, the broad themes that emerged from participant responses offer the most clinical utility. As previously mentioned, school psychologists make few referrals to outside community mental health services (Villarreal, 2018). However, adolescents in this study appeared to prefer a mental health counsellor, because they provided anonymity and were removed from the school. They also had opinions about the use of medication, and perfered the CBT approach to anxiety, as opposed to simply providing relaxation techniques and in-school support strategies. For practice, these results demostrate the importance of providing adoelscents with autonomy and including them in the referral process

when recommending mental health services. Without including them, their perspectives may be lost and recommendations that do not fit the adoelscents' values may be utilized. This would necessarily impact treatment integrity and uptake.

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Appendix A – Mental Illness Stigma Questionnaire

The following scale was derived from the Perceived Stigma Scale (Na & Chasteen, 2016).

Please indicate your agreement with each of the following statements from 1(Strongly Disagree) to 5 (Strongly Agree)

	1 Strongly Disagree	**2 Disagree**	**3 Neither Agree nor Disagree**	**4 Agree**	**5 Strongly Agree**
Most people believe that people with mental illness could snap out of it if they wanted					
Most people believe that mental illness is a sign of personal weakness					
Most people believe that mental illness is not a real medical illness					
Most people believe that people with mental illness are dangerous					
Most people believe that it is best to avoid people with mental illness, so you don't become mentally ill yourself					
Most people believe that people with mental illness are unpredictable					
If they had a mental illness, most people would not tell anyone					
Most people would not employ someone they knew had been mentally ill.					
Most people would not vote for a politician they knew had been mentally ill					

Appendix B - Mental Health Literacy Questionnaire

This questionnaire was developed for the purposes of this study.

Please indicate your agreement with each of the following statements from 1 (Strongly Disagree) to 5 (Strongly Agree).

	1 Strongly Disagree	**2 Disagree**	**3 Neither Agree nor Disagree**	**4 Agree**	**5 Strongly Agree**
I feel knowledgeable about the symptoms of anxiety					
I feel knowledgeable about treatments for anxiety					
I feel knowledgeable about the symptoms of many different mental illnesses					
I believe I am knowledgeable about various mental illnesses and their treatments					

Appendix C – Service Descriptions

1. Classroom Teacher Support

Strategies for supporting individual with anxiety

- Teaching Sam strategies to reduce anxiety and stress
- Teacher arranges time to talk with the Sam privately
- Teacher meets with Sam's parents to discuss supports for home and suggest other resources
- Develop an Individual Education Plan to help reduce the impact of Sam's anxiety on her academics, and make accommodations such as allowing for extra time to complete assignments.

Time Commitment and Setting

- No time specific commitment
- Takes place in school

2. School Counsellor Support

Strategies for supporting individual with anxiety

- Help Sam develop self regulation by teaching her mindfulness techniques (accepting anxiety and how it makes her feel; how to let go of the anxious feelings)
- Work with her parents and teach them new ways to communicate with Sam about her anxiety
- Organize a small group of other students, and Sam, who are all having difficulties with anxiety, and teach coping strategies in a group setting

Time Commitment and Setting

- No set time limit or commitment

- Takes place in school

3. Mental Health Counsellor Support

Strategies for supporting individual with anxiety

- Use cognitive behaviour therapy to address Sam's anxious thoughts, how she looks at the world, and how thinks about herself. Help Sam learn to challenge the negative thoughts that lead to her anxiety and replace them with more positive and realistic thoughts.
- Teach Sam to use healthy behaviours (like exercise) to deal with her anxiety.
- Teach relaxation strategies for when Sam is feeling anxious

Time Commitment and Setting

- Likely to occur in a private office outside of school hours
- Time commitment of 8-10 sessions

4. Psychiatrist Support

Strategies for supporting individual with anxiety

- Prescribe Sam an anti-anxiety medication
- Use cognitive behaviour therapy to address Sam's anxious thoughts, how she looks at the world, and how thinks about herself. Help Sam learn to challenge the negative thoughts that lead to her anxiety and replace them with more positive and realistic thoughts.
- Teach Sam to use more healthy behaviours to deal with her anxiety.

Time Commitment and Setting

- Time commitment of 8-10 sessions for CBT + periodic check ins for the medication refills
- Will occur in hospital or private office

5. Internet Counselling Support

Strategies for supporting individual with anxiety

- Vancouver Counsellors will communicate with Sam for up to 60 minutes, by phone or online and help her brainstorm strategies to help with her anxiety.
- They will not provide Sam with direct support or therapy
- They will give Sam local resources that she could use to get more help with her anxiety, and help her explore the development of her own healthier coping strategies.

Time Commitment and Setting

- Accessible by phone and computer between 6 PM and 12 AM PST
- Up to 60 minutes allotted per chat with a counselor

Appendix D – Children's Intervention Rating Profile

This scale was adapted from the scale used by Witt & Elliott, 1985.

	1 Strongly Disagree	**2 Disagree**	**3 Neither Agree nor Disagree**	**4 Agree**	**5 Strongly Agree**
The method used was fair					
The method used was too difficult or time-consuming					
The method used may cause problems with the person's peers, friends or family					
There are better ways to handle the problem than the one described here					
The method used by the service provider would be a good one to use with others who have this kind of difficulty					
I like the method					
I think that the method used would help the person feel better and be more successful at school					

Appendix E – Pairwise Comparisons of Treatment Acceptability Ratings

Table 5. Pairwise Comparisons of Treatment Acceptability Ratings.

Treatment Acceptability Rating		Mean Difference	SE	*p*
Classroom Teacher Support (CT)	SC	.87	.64	.18
	MC	.15	.91	.87
	PS	5.56*	.96	.00
	IC	4.56*	1.09	.00
School Counsellor Support (SC)	MC	-.72	.89	.42
	PS	4.69*	.94	.00
	IC	3.69*	1.05	.00
Mental Health Counsellor Support (MC)	PS	5.41*	.65	.00
	IC	4.41*	.99	.00
Psychiatrist Support (PS)	IC	-1.00	1.07	.36

*****Mean difference significant at the $p<0.05$ level.