Service Use and Barriers to Care for Youth with Serious Behaviour Problems:
A Longitudinal Study

by

Gillian K. Watson

M.A., Simon Fraser University, 2009
B.Sc. (Hons.), McMaster University, 2006

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Name:	**Gillian K. Watson**
Degree:	**Doctor of Philosophy**
Title:	***Service Use and Barriers to Care for Youth with Serious Behaviour Problems: A Longitudinal Study***
Examining Committee:	**Chair:** Rachel Fouladi Associate Professor

Marlene Moretti
Senior Supervisor
Professor

_____

Jodi Viljoen
Supervisor
Associate Professor

_____

Charlotte Waddell
Supervisor
Professor

_____

Raymond Corrado
Internal Examiner
Professor
School of Criminology

_____

Christine Wekerle
External Examiner
Associate Professor
Department of Pediatrics
McMaster University

_____

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Abstract

The current study examined the longitudinal mental health needs of males and females with serious behaviour problems and their experiences with services. Study One assessed the mental health profiles of youth in adolescence ($N = 141$; $M = 15.28$, $SD = 1.42$) and young adulthood ($N = 69$; $M = 19.85$, $SD = 1.42$). Rates of service use and barriers to care were examined quantitatively in young adulthood. Study Two further explored youths' experiences with services through an in-depth qualitative interview ($N = 19$; $M = 23.56$, $SD = 1.52$).

Study One results demonstrated that mental health problems persisted from adolescence to young adulthood. Approximately half of participants endorsed clinically-elevated externalizing problems (substance dependence, antisocial behaviour, ADHD) and a third endorsed clinically-elevated internalizing problems (depressive and PTSD) in young adulthood. Externalizing problems appeared to be more stable than internalizing problems from adolescence to young adulthood. Despite this need, only 53% of participants in young adulthood accessed services and 43% reported at least one barrier to care.

Study Two provided detailed accounts of youths' life histories, experiences with services and barriers to care. Participants reported experiencing severe child maltreatment, highlighting the need for early intervention services that protect youth from harm. Results pointed to the need for youth-centered services that are strengths-based, flexible, and use a harm-reduction approach. Youth preferred service providers who were empathic, patient, consistent and non-judgmental. The barriers to care themes were complex and occurred at the structural (e.g., lack of availability), familial (e.g., caregivers impacted their ability to access services), and individual (e.g., negative expectation of therapeutic relationship) levels. Findings are interpreted based on youths' histories of harmful interpersonal relationships and traumatic experiences. Clinical and policy recommendations are discussed.

Keywords: Conduct disorder; service use; barriers to care; behaviour problems; youth; comorbidity

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Chapter 1.

INTRODUCTION

1.1. Conduct disorder in Canada

Understanding the needs of youth with severe behaviour disorders is a complex and socially relevant issue in Canada. Conduct disorder (CD), the mental health diagnosis for youth with serious behaviour problems, is characterized by persistent antisocial behaviours including bullying, cruelty, stealing, weapon use, fire setting, lying, running away and truancy (Kazdin, 1995), and affects over 2% of children aged 4-17 years in Canada (Waddell, Shepherd, Schwartz, & Barican, 2014). These youth are at risk of coming into contact with the law, at which point they are often referred to as "young offenders" (Bell, 2002).

Children and youth with CD have often had challenging and disadvantaged life histories comprised of multiple risk factors at the individual, family and societal level (Murray & Farrington, 2010). The most robust risk factors associated with the development of CD include genetic vulnerability, neurodevelopment impairment, parental psychopathology, poor parental supervision, and harsh parenting practices (Murray & Farrington, 2010). In addition, children and youth with CD are often the victims of chronic, severe maltreatment and neglect (Greenwald, 2002; Gretton & Clift, 2011; Murray & Farrington, 2010) and are subsequently at high risk for developing a multitude of mental health problems.

As a result of their complex and multiple needs, youth with CD often come in contact with a wide variety of publicly-funded systems including child protection, special education, mental health care, general health care, and forensic services (Grisso, 2008; Jones, Dodge, Foster, Nix, & Conduct Problems Prevention Research Group, 2002).

Various studies have attempted to quantify the monetary collective expenses that these youth incur. For example, an economic study from the United States (US) found that preventing just one high-risk youth from developing CD could save society $2.6–4.4 million (US) in averted lifetime costs (Cohen & Piquero, 2009). This estimate was based on a variety of costs including support services, rehabilitation, criminal activity, and incarceration. Regarding Canadian estimates, the cost of forensic services alone is astonishing. For example, it requires nearly $100,000 to keep just one youth in secure custody for a year (Werry, 1997).

In addition to the societal financial implications, one cannot ignore the significant impact that CD has on the youth who are affected. Research indicates that youth with CD problems are at increased risk for a multitude of negative outcomes in adolescence and young adulthood including lower educational achievement, poor vocational adjustment, early parenthood, continued involvement in crime, and persistent substance use and mental health impairment (Fergusson, Horwood, & Ridder, 2005; Kretschmer et al., 2014; McCrone, Knapp & Fombonne, 2005). This evidence provides substantial support for allocating resources towards prevention and treatment services as a means of reducing unnecessary costs to both society and the individual youth.

Despite the clear need for prevention and early intervention, Canada has focused primarily on the issues of public protection from violent behaviour perpetrated by young offenders. Indeed, the topic of youth crime in Canada has received substantial attention as reflected in the current Conservative government's push to increase penalties for offenders (Cook & Roesch, 2012). Yet research consistently points to the benefits of prevention and treatment programs as a more effective method of reducing violence (Waddell et al., 2005). In addition, a punitive approach is misguided as it fails to take into account the disadvantaged early life experiences and multiple mental health needs youth with serious behaviour problems often have (Odgers, Burnette, Chauhan, Moretti, & Reppucci, 2005; Waddell et al., 2005).

As a result of these two rather divided positions (viewing serious behaviour problems as a mental health issue versus a public protection issue), youth diagnosed with CD in Canada do not receive adequate prevention or treatment programs in a

standardized manner. In fact, we know little of what mental health services are actually delivered and we know even less about youths' opinions and experiences with these services. Furthermore, recent research has noted a significant gap in services available during the transition from the child and youth system to the adult system, despite their growing need for support during this time (Davidson, Cappelli, & Vloet, 2011). In addition to these systemic barriers to youth receiving adequate mental health care, international research points to the many attitudinal (e.g., preference for self-reliance, negative views of help-seeking) that prevent youth from engaging in potentially helpful services (Gulliver, Griffiths, & Christensen, 2010; Walsh, Scaife, Notley, Dodsworth, & Schofield, 2011). However, very little is known in Canada about youths' experiences with treatment services as well as the structural and attitudinal barriers to receiving supportive services.

The current study addresses our lack of knowledge in this area. First, it examines the mental health needs of girls and boys with severe behaviour problems in a Canadian context, as these needs unfold from adolescence to young adulthood. Second, it explores youths' positive and negative experiences with treatment and related support services, as well as their perceived barriers to care. Although prevention programs are an essential component to lessening the burden of CD, the focus of the current study is on understanding youths' experiences with treatment services in childhood, adolescence and young adulthood.

1.2. Mental health needs of youth with serious behaviour problems

Research on the mental health needs of youth with serious behavior problems has been conducted in communities, mental health clinics, and juvenile justice settings. Much of the research points to the same conclusion: youth with serious behaviour problems typically have multiple mental health needs. For instance, a large, community-based study in New Zealand (the Dunedin Study) found that nearly all youth with CD had comorbid disorders, with 88% of males and 93% of female meeting criteria for one or more current psychiatric disorders (Moffitt, Caspi, Rutter, & Silva, 2001). Similarly, research from Canadian and US correctional settings suggests that a significant

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percentage of incarcerated juveniles (46-88%) meet criteria for two or more mental disorders (Abram, Teplin, McClelland & Duncan, 2003; Gretton & Clift, 2011). Although youth in juvenile justice settings have typically exhibited rule-breaking behaviour, not all youth in contact with the justice system meet criteria for CD. A meta-analysis examining the prevalence of mental disorders among youth in predominately US juvenile justice settings indicated that approximately half (53%) met criteria for a diagnosis of lifetime CD (Fazel, Doll, & Långström, 2008).

Understanding rates of comorbidity among youth with CD is essential to developing individualized, effective treatment plans that match their needs, as youth with multiple disorders are more likely to drop out of treatment early and have a more chronic course of impairment than youth with a single disorder (Cornelius et al., 2004; Dierker, Nargiso, Wiseman, & Hoff, 2001; Grella, Hser, Joshi, & Rounds-Bryant, 2001). Among youth with CD, additional mental disorders have been found to exacerbate behavioural symptoms (Lahey & Waldman, 2003) and increase the chances of recidivism (McReynolds, Schwalbe, & Wasserman, 2010). The most common comorbid disorders among youth with CD include attention-deficit/hyperactivity disorder (ADHD), substance use disorders (SUDs), and internalizing disorders such as posttraumatic stress disorder (PSTD), depression, and generalized anxiety (Abram et al., 2003; Connor, Ford, Albert, & Doerfler, 2007; Ehrensaft, 2005; Moffitt et al., 2001). Although CD is more prevalent in males (Loeber & Keenan, 1994), recent research has demonstrated that females with CD often have more complex mental health profiles compared to males with CD. In particular, females with behaviour problems have significantly higher rates of internalizing disorders (Abram et al., 2003; Fazel et al., 2008; Gretton & Clift, 2011; Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005). Therefore, to tailor services effectively to individual needs, gender differences must be taken into account.

1.3. Gender differences for youth with serious behaviour problems

A meta-analysis of predominately US studies examining the diagnostic profiles of youth in juvenile justice settings found that females were three times more likely than males to have current major depression (29% versus 11%; Fazel et al., 2008).

Prevalence rates of major depressive episodes were quite low in a Canadian study, however, with only 4% of males and 6% of females meeting criteria for a major depressive episode at the time of assessment (Gretton & Clift, 2011). Understanding prevalence rates of depression in youth with CD is critical, particularly due to its association with high rates of both self-harm and suicidal behaviour, especially among females (Fergusson et al., 2005; Wasserman, McReynolds, Schwalbe, Keating, & Jones, 2010).

US research indicates that about one in ten youth in custody meet criteria for a current diagnosis of PTSD (Abram et al., 2004; Cauffman, Feldman, Waterman, & Steiner, 1998). The prevalence rate of current PTSD appears to be approximately twice as high in female incarcerated juvenile offenders compared to male incarcerated juvenile offenders (Cauffman et al., 1998). Canadian research in correctional facilities has found even greater gender differences, with 2% of males and 13% of females meeting criteria for PTSD at the time of assessment (Gretton & Clift, 2011). This gender difference may be explained by the significantly higher incidences of multiple types of traumas that females experience compared to males (Ford, Grasso, Hawke, & Chapman, 2013).

Although prevalence rates for internalizing disorders are consistently higher among females than males with CD, the gender differences in prevalence rates for externalizing disorders are less conclusive. SUDs are the most prevalent comorbid disorders among youth with CD. Large scale research studies in the US have found that approximately 40-50% of youth in juvenile justice facilities have a current SUD, either substance abuse or dependence, with no significant gender differences (Abram et al., 2003; Wasserman et al., 2010). Research in youth correctional facilities in British Columbia (BC) indicated higher prevalence rates of SUDs than US estimates, with 86% of males and 100% of females meeting criteria for current substance abuse or dependence (Gretton & Clift, 2011). Prevalence rates of substance dependence, the more severe form of SUD, were lower with only 35-66% of females and 28-42% of males meeting criteria for current dependence on alcohol, marijuana or other illicit drugs (Gretton & Clift, 2011). Community estimates for youth with CD in New Zealand (the Dunedin Study) found similar prevalence rates of comorbid alcohol dependence (43% of males and 31% of females) and marijuana dependence (38% of males and 27% of

females; Moffitt et al., 2001). Youth with comorbid CD and SUDs are at particularly high risk for repeated involvement with the juvenile justice system (McReynolds et al., 2010); however, treatment of SUDs has been shown to decrease the rates of recidivism (Hoeve, McReynolds, & Wasserman, 2014).

ADHD and CD have been well documented as being highly comorbid disorders (Loeber, & Keenan, 1994). The Dunedin Study found that more males than females had comorbid ADHD (23% of males and 9% of females), although this was not found to be a statistically significant difference (Moffitt et al., 2001). Canadian and US studies show that prevalence rates of current ADHD in youth correctional facilities are similar and range from 12-17% for males and 19-22% for females, with some research finding significantly more females than males met criteria for ADHD (Abram et al., 2003; Fazel et al., 2008; Gretton, & Clift, 2011), contrary to higher prevalence rates for males in the general public (Larson, Russ, Kahn, & Halfon, 2011).

Although there is a large body of research on the prevalence rates of comorbid disorders among youth with serious behaviour problems, large ranges in prevalence rates and some mixed results in terms of gender differences still exist. Furthermore, research has predominately been conducted in the US, with less information available on the mental health needs of Canadian youth with behaviour disorders. Even less is understood about the needs of youth as they transition from adolescence into young adulthood.

1.4. The mental health needs of youth with serious behaviour problems as they transition to young adulthood

Longitudinal epidemiology studies have demonstrated that most adult mental disorders start in childhood or adolescence (Copeland et al., 2009; Kim-Cohen et al., 2003), indicating that mental disorders can have a lasting impact on healthy development when they start in childhood or adolescence. Regarding the longitudinal course of CD, studies demonstrate that symptoms typically start in childhood, peak in adolescence and decline in young adulthood (Odgers et al., 2008). There is a distinction

in developmental trajectories of individuals with onset before the age of 10-years (childhood-onset) and those with an onset after 10-years (adolescent-onset; American Psychiatric Association, 2000). Typically research indicates that the childhood-onset subtype is more severe and pervasive, although both subtypes of CD greatly impact healthy development (Kretschmer et al., 2014). For those whose symptoms persist into adulthood, a diagnosis of antisocial personality disorder (ASPD) may be given.

Despite the noted decline in antisocial behaviour over time, epidemiological studies have found that behaviour problems (CD predicting ASPD) and substance dependence are the most stable forms of psychopathology from adolescence to young adulthood (Copeland et al., 2009). Regarding SUDs, early onset in adolescence has been associated with persistence of dependence into young adulthood (Rohde, Lewinsohn, Kahler, Seeley, & Brown, 2001). Perhaps CD and substance dependence persist over time because once a youth becomes entrenched in a lifestyle that includes crime, gang involvement, and violence it is difficult to break free. Indeed, research indicates that youth with CD are at higher risk of developing a SUD (Fergusson, Horwood, & Ridder, 2007) with prevalence rates increasing from early to late adolescence (Lansford et al., 2008). There are also many secondary risks associated with both behaviour disorders and SUDs (e.g., school dropout and early parenthood) that may preclude healthy development.

CD is also seen as an antecedent or predictor of additional disorders such as substance dependence, anxiety and depression in young adulthood (Fergusson et al.; 2005; Kim-Cohen et al., 2003; Reef, Diamantopoulou, van Meurs, Verhulst, & van der Ende, 2009). Multiple studies have substantiated the finding that antisocial behaviour in adolescence leads to increased likelihood of internalizing symptoms (Sheidow et al., 2008), especially among females (Ferguson et al., 2005). A recent meta-analysis concluded that even externalizing problems in childhood are associated with the development of depression in adulthood (Loth, Drabick, Leibenluft, & Hulvershorn, 2014).

This research suggests that psychopathology can interrupt healthy development, and therefore put youth at further risk for developing additional disorders, making

psychopathology potentially cumulative (Maughan & Rutter, 1998). Alternatively, the same risk factors such as child maltreatment, socio-economic disadvantage or genetic predispositions may set youth up for persistent problems over time (Fergusson et al., 2005). In both of these situations, prevention and early treatment programs are necessary to mitigate the effects of causal risk factors and subsequent psychopathology on development. But unfortunately, not many children and youth receive appropriate evidence-based prevention or treatments, when such interventions could have a profound impact on their developmental course.

1.5. Service use

Prevention programs that target risk factors such as child maltreatment, family adversity and socio-economic disadvantage are essential in preventing the development of behaviour problems (Fergusson et al., 2005). Parent training programs such as the Nurse-Family Partnership (NFP), Incredible Years, and Triple P all have substantial evidence for the prevention of CD (de Graaf, Speetjens, Smit, de Wolff, & Tavecchio, 2008; Furlong et al., 2012; Waddell et al., 2014). Evidence-based treatment programs for youth with CD include parent training, family therapy and individual cognitive-behavioural therapy (CBT) (Waddell et al., 2014). For adolescents in particular, multi-systemic therapy (MST; Henggeler, Cunningham, Schoenwald, & Borduin, 2009) has received substantial support in US settings, with less positive results in Ontario (Leschied & Cunningham, 2002). A more recent treatment, the Connect Parent Program (Moretti, Braber, & Obsuth, 2009), which is an attachment-based 10-week group program for parents of youth with CD, is also showing excellent reductions in internalizing and externalizing symptoms (Moretti, & Obsuth, 2009). Despite the substantial evidence supporting prevention and treatment programs for CD, many are not available to children and families in BC, leading to high rates of unmet need.

One of the first epidemiological studies to measure childhood mental disorders and service use on a representative population sample in Canada was the Ontario Child Healthy Study lead by Offord and colleagues in 1987. This study found that only 16% of children and youth aged 4-16 years with a mental disorder had accessed specialized mental health services in the previous six months. A summary of more recent

international epidemiological research indicated that only 31% of children and youth aged 4-17 years old with a mental disorder were estimated to be receiving specialized mental health services (Waddell et al., 2014). Although not a representative population sample, BC's 2008 Adolescent Health Survey measured a variety of health concerns, including mental health service use, for 29,000 public school students in grades 7-12 across the province (Smith et al., 2009). When asked about accessing mental health services in the past year, 18% of female students and 7% of males students reported that they had not accessed such services when they felt they needed them. Although the Adolescent Health Survey provided insight into Canadian adolescents' reports, it did not capture the full extent of unmet need, as the survey did not measure mental disorders.

Regarding service use by disorder, little recent research has been conducted in Canada. However, large-scale US studies provide some insight into patterns of service use by disorder. The National Comorbidity Survey-Adolescent Supplement (NCS-A) found that only approximately one-third (36%) of adolescents with a mental disorder had received treatment in their lifetime (Merikangas et al., 2011). This study found that adolescents with ADHD had the highest rates of service use, with 60% of youth with ADHD accessing services. Approximately 32% of youth with CD and 40% of youth with unipolar depression had ever received mental health services. Youth with anxiety or SUDs had the lowest rates of lifetime service use (18% and 15% respectively). Other US research has found that among a high-risk adolescent population, those with SUDs alone had significantly lower rates of professional service use compared to those with non-substance use psychiatric disorders (46% versus 70% respectively; Garland, Aarons, Brown, Wood, & Hough, 2003).

US studies suggest that youth transitioning to the adult system (16-24-year-olds) have even lower mental health service use rates. For instance, a large epidemiological study found that there was a 50% drop in service use between age 16-17 and age 18-19 years (Pottick, Bilder, Stoep, Warner, & Alvarez, 2008). Some suggest this may be a result of poor referral systems and lack of coordination between the child and adult systems for youth with serious mental disorders. Davis (2003) calls this a "system limbo" between child and adult mental health systems – wherein young people have

"aged out" of the child system, yet their clinical profiles may not make them eligible for adult services. Unfortunately, there is little research available in Canada on the use of similar services by youth as they transition to adult systems.

Above and beyond looking at how youth have used services in the past, it is essential to understand what variables may act as barriers for youth with CD. The awareness of which barriers are associated with an underuse is pertinent to improving referral systems and providing services that meet the needs of these high-risk populations.

1.6. Barriers to receiving mental health care

Recently, the Canadian Institutes of Health Research (CIHR), a federal health research funding body, has called for more research on access and wait times for child and youth mental health services (Davidson, Kutcher, Manion, McGrath, & Reynolds, 2010). Davidson et al. summarized the lack of knowledge in this area by stating, "while evidence suggests that child and youth mental health needs are unmet, and …the barriers to access are well documented, it is entirely unclear who is waiting for what, from who, and for how long?" (p. 4). International research on barriers to receiving care have found that ethnic minority (Garland et al., 2005; Erath et al., 2009), female gender (Zimmerman, 2005), and living in rural location (Kodjo, & Auinger, 2004) all influence access for children. Although studies examining demographic correlates of unmet need are important in identifying who is being underserved, such studies do not address why youth are not accessing services. To answer this question, several studies have directly asked youth their reasons for not using services.

International research has demonstrated that embarrassment, stigma, preference for self-reliance, and lack of knowledge about mental health symptoms have prevented youth from accessing services (Gulliver et al., 2010; Samargia, Saewyc, & Elliott, 2006; Yap, Reavley, & Jorm, 2013). In BC, the 2008 Adolescent Health Survey (Smith et al., 2009) mirrored these findings in that the most commonly-reported barriers were: "thought/hoped the problem would go away" (56%), "don't want parents to know" (43%), "didn't know where to go" (30%), and "afraid someone I know might see me" (23%).

The limited research on barriers to care among youth with serious behaviour problems suggests that they may experience even more substantial barriers compared to youth with internalizing disorders. For example, Abram, Paskar, Washburn, and Teplin (2008) examined perceived barriers to mental health services in one of the largest US samples (N = 1829) of male and female youth detained in custody and found that approximately 85% of youths with psychiatric disorders reported at least one perceived barrier. No gender differences among the types of barriers to care were detected. The most frequently reported perceived barrier was the belief that the problems would go away or that they could solve them on their own. Research from Great Britain found that youth in custody often did not understand or recognize their mental health needs which acted as a significant barrier to accepting mental health referrals (Walsh et al., 2011). Research on young offender populations highlights the strong attitudinal barriers that need to be taken into account when offering services.

These results cannot be directly applied to Canadian young offenders, however, as our systems are quite structurally different compared with the US or Great Britain. Thus, there is a need for research to be conducted on high-risk samples in Canadian populations to understand their unique barriers and experiences with treatment services.

1.7. Current study

The current dissertation comprises two studies. Study One was a quantitative examination of the mental health needs of youth with serious behaviour problems with an emphasis on exploring gender differences. This study built on the author's Master's thesis (2009) that examined diagnostic profiles during adolescence, by exploring the profiles of these same youth during young adulthood. A quantitative examination of service utilization and barriers to care in young adulthood was also conducted. Study Two was an in-depth qualitative examination of service use and barriers to care with a select subsample of participants during young adulthood. Results from this study have the potential to inform service delivery for youth who are often seen as "difficult to engage" in mental health services.

Chapter 2.

STUDY ONE

The following outline the research questions and hypotheses for Study One's examination of the longitudinal mental health needs of youth with serious behaviour problems. A quantitative exploration of service use and barriers to care in young adulthood was also included as part of Study One.

1) What are the mental health profiles and comorbidity rates of high-risk youth during young adulthood? Do their mental health profiles and rates of comorbidity differ by gender?

Based on previous longitudinal research studies (Reef et al., 2009) it is predicted that prevalence rates of clinically-elevated mental health problems among both males and females with serious behaviour problems will remain substantially higher than the general population. Due to the higher prevalence rates of internalizing disorders among adolescent females with behaviour problems (Fazel et al., 2008), it is predicted that females will continue to have higher prevalence rates of clinically-elevated internalizing symptoms (depressive and PTSD) compared to males and subsequently will have higher prevalence rates of comorbidity.

2) What is the stability of mental health profiles from adolescence to young adulthood? Does the stability of mental health profiles differ by gender?

It is predicted that antisocial behaviours and attention problems will decrease over time, whereas SUDs and internalizing problems (PTSD, depression) will increase. The hypothesis that externalizing behaviours will decrease over time is based on research indicating that the peak of antisocial behaviour occurs during mid-to-late adolescence (Odgers et al., 2008). Support for a decrease in attention difficulties comes

from research indicating a lower prevalence of ADHD as youth age into adulthood (Kessler et al., 2006). Increased rates of PTSD and depressive problems are predicted based on research indicating that CD increases the risk of developing internalizing problems in adulthood (Sheidow et al., 2008). Finally, the prevalence of substance dependence is expected to increase from adolescence to young adulthood based on community studies of youth with behaviour problems (Ferguson et al., 2007; Lansford, et al., 2008).

3) What are the rates of mental health service use and barriers to care among high-risk young adults? Does gender or type of mental health problem have an impact on rates of service use and barriers to care?

It is hypothesized that a significant percentage of youth with clinically-elevated mental health symptoms will not have accessed services in the previous six months (Pottick et al., 2008). Based on US epidemiological research (Merikangas et al., 2011), it is predicted that those with depressive problems and ADHD problems will access more services compared to those with antisocial behaviour problems, substance dependence or PTSD. Significant barriers to care for all youth are predicted, especially those endorsing antisocial behaviour and substance dependence (Walsh et al., 2011). No gender differences are predicted for service use rates and barriers to care among this high-risk population (Abram et al., 2008).

2.1. Method

2.1.1. Overview

Data from this study was drawn from a longitudinal study of teens at risk for conduct disorder and aggression directed by Dr. Marlene Moretti and funded by a Canadian Institute for Health Research (CIHR) New Emerging Team Grant (#54020) as well as a CIHR Operating Grant (#84567). Ethical approval was obtained from the Simon Fraser University (SFU) Research Ethics Board (REB). Three waves of data (self-report and diagnostic interviewing) were collected over a period of approximately eight years (2003-2010). Protocols measured mental health symptoms, maltreatment

and violence experiences, social-relational functioning, self-regulatory capacity, and personality characteristics. For the purposes of the current study, select measures administered at Wave 1 and 3 were utilized.

2.1.2. Participants and procedures

Wave 1

Data collection for Wave 1 occurred between 2003 and 2006. The full sample at Wave 1 consisted of 179 adolescents (82 females, 97 males) between the ages of 12 and 18. Approximately half were drawn from two custody centres and a probation office (n = 100; 56%) in British Columbia and the remainder were recruited from a provincial mental health centre mandated to support youth with severe behaviour problems (n = 79; 44%).

In the youth justice settings, parental consent was sought to approach 132 youth and was refused by parents of 28 youth (21%). Of those whose parents provided consent (104), 5 youth (4%) refused to consent/assent and one youth withdrew prior to completing the study (<1%). In the mental health setting, parental consent was received for 102 youth. Of these youth, 19 (19%) refused to give consent/assent and two (2%) withdrew prior to completing the study. No significant differences were found between youth who participated versus those who did not with respect to age [F (1, 226) = 0.78, p > .05] and gender (χ^2 = 0.31, p > .05).

Given that the focus of the larger project was on gender differences, all females admitted to the custody or mental health centre were recruited to participate in the study and a sample of males matched by age were selectively recruited. Youth with an IQ below 70 or significant Axis I psychotic symptoms were excluded from the study. Youth who agreed to participate were administered three modules which comprised a number of semi-structured clinical interviews, self-report measures and a computerized assessment. Measures were administered in three separate testing sessions to reduce fatigue and enhance validity of responses and were administered by trained graduate students and research assistants (RAs). Participants received a $30 cash honorarium or

a gift certificate after completing Time 1 measures. All assessments were digitally recorded with consent.

For the purpose of the current study, only youth who had completed the measures of interest were included in the analyses. Reason for non-completion ($n = 38$) included scheduling difficulties, withdrawal due to disinterest and transfer to another institution. Thus, the Wave 1 sample consisted of 141 adolescents (76 males, 65 females) between the ages of 12 and 18 years. Table 1 outlines demographic information for Wave 1 participants.

Table 2.1.   Demographics of Wave 1 Participants

		Total (N=141)	Male (n=76)	Female (n=65)	
Age	Mean	15.28	15.42	15.11	$F(1, 139)=1.73$
	Standard Deviation	1.42	1.46	1.35	
Ethnicity	Caucasian	93 (66%)	57 (75%)	36 (55%)	$\chi^2=6.56$*
	Aboriginal	35 (25%)	15 (20%)	20 (31%)	
	Other	13 (9%)	4 (5%)	9 (14%)	
Legal Guardian[a]	Biological Parent(s)	84 (60%)	47 (63%)	37 (58%)	$\chi^2=4.68$
	Relative	9 (6%)	7 (9%)	2 (3%)	
	Child in Care	45 (32%)	20 (27%)	25 (39%)	
	Self	1 (<1%)	1 (1%)	0 (0%)	
Location	Mental Health	67 (48%)	36 (47%)	31 (48%)	$\chi^2=.001$
	Youth Corrections	74 (52%)	40 (53%)	34 (52%)	

*$p < .05$
[a] Data available for 139 participants.

Age, location of recruitment, and legal guardianship status did not differ by gender. However, gender differences were present with respect to ethnicity, with more males than females reported as Caucasian (75% versus 55%), and more females than males as Aboriginal (31% versus 20%).

There were no statistically significant differences between the Wave 1 full sample ($N = 179$) and the sample used in the current study ($N = 141$) with regards to age ($F[1, 139] = 1.17$, $p > .05$), gender ($\chi^2 = 0.02$, $p > .05$), location of recruitment ($\chi^2 = 3.08$, $p > .05$), and legal guardianship status ($\chi^2 = 7.06$, $p > .05$).

The sample was quite high-risk as 32% had been removed from their biological parents and where living in foster care at the time of Wave 1 participation.   Child maltreatment experiences were measured using a revised version of the Family Background Questionnaire (FBQ; McGee, Wolfe, & Wilson, 1997). The FBQ measures severity ratings for multiple types of maltreatment including psychological abuse (e.g., threatened to abandon you), physical abuse (e.g., threw you against something), sexual abuse, (e.g., sexually assaulted or made you be involved in unwanted sexual experiences), neglect (e.g., did not feed you properly) and witnessing parental violence (e.g., pushed, grabbed or shoved partner).

Results from the FBQ indicted extremely high rates of maltreatment among this sample. The majority of participants ($n = 120$; 89%) reported having experienced some form of psychological abuse, with no gender differences in prevalence rates (χ^2[1, $n = 135$] = 0.30, $p > .05$). Many youth also reported neglect, as 34% ($n = 47$) reported inconsistent medical attention by a caregiver and 20% ($n = 27$) reported receiving inadequate nutrition from a caregiver. No gender differences were found in prevalence rates of neglect.

On the other hand, gender differences existed for prevalence rates of physical abuse, sexual abuse and witnessing violence between caregivers. Approximately two thirds ($n = 90$; 67%) of participants reported experiencing some form of physical abuse, with significantly more females (n = 48; 76%) than males (n = 42; 58%) reporting physical abuse experiences (χ^2[1, $n = 135$] = 4.82, $p < .05$). Similarly, significantly more females ($n = 39$; 62%) than males ($n = 21$; 29%) reported witnessing violence between their caregivers (χ^2[1, $n = 135$] = 14.59, $p < .001$). Finally, significantly more females (n = 21; 33%) than males (n = 3; 4%) reported experiencing at least one incidence of sexual abuse (χ^2[1, $n = 135$] = 19.24, $p < .001$). Taken together, maltreatment was pervasive among the sample population, with females experiencing more physical and sexual abuse, in addition to witnessing more violence within their families.

For the purpose of the current study, select measures administered only at Wave 1 and 3 were utilized; therefore details about Wave 2 procedures are not included.

Wave 3

Data collection for Wave 3 occurred between 2008 and 2010. Consent for Wave 3 participation was secured in both Wave 1 and 2 data collection and detailed contact information was provided at these points in time. Facebook was also used as a method of inviting youth to participate in the study when other contact methods had been exhausted.

Of the 179 Wave 1 participants contacted, 81 (45%) were unable to be reached, 7 (4%) refused, 3 (2%) had passed away, and 2 (1%) were incarcerated. A description of the study was provided by phone and informed consent was secured for 86 youth (48%). This attrition rate is consistent with other longitudinal studies of high-risk youth populations (e.g., Raby, Cicchetti, Carlson, Egeland, & Collins, 2013). Consent from legal guardians was secured for participants younger than 18 years of age. Wave 3 data was collected in two modules. Module 1 included structured diagnostic interviews, semi-structured interviews, and content sensitive self-report questionnaires and was administered in-person ($n = 40$) or by phone ($n = 46$) by trained graduate students and research assistants. Each interview was audio recorded with consent.

Module 2 included self-report questionnaires and was completed in-person or electronically via a "websurvey" that was provided to participants by secure email. Youth who did not have access to the internet were mailed a hard copy of the self-report questionnaires. In total, participation in Wave 3 required 3-4 hours plus travel and an honorarium of $175.00 was provided to participants. Following guidelines set forth by the SFU REB, clinical consultation was available to all interviewers as needed and youth were provided with information on services in the Vancouver area (e.g., mental health, drop-in centres, shelters) upon completion of the study.

For the purpose of the current study, only participants with completed Wave 1 and 3 measures of interest were included. Table 2 reports the demographic information for Wave 3 participants who had completed Wave 1 measures of interest and at least one Wave 3 measure of interest ($n = 69$; 30 males, 39 females). Participants were between the ages of 15 and 23 years old at time of Wave 3 data collection.

Table 2.2.　　Demographics of Wave 3 Participants

		Total (N=69)	Male (n=30)	Female (n=39)	
Age	Mean	19.85	20.17	19.60	$F(1,67) = 2.73$
	Standard Deviation	1.42	1.51	1.32	
Ethnicity	Caucasian	53 (77%)	28 (94%)	25 (64%)	$\chi^2 = 8.47*$
	Aboriginal	12 (17%)	1 (3%)	11 (28%)	
	Other	4 (6%)	1 (3%)	3 (8%)	
Legal Guardian[a]	Biological Parent(s)	40 (59%)	17 (58%)	23 (59%)	$\chi^2 = 1.77$
	Relative	6 (9%)	4 (14%)	2 (5%)	
	Child in Care	22 (28%)	8 (28%)	14 (36%)	
	Self	0 (0%)	0 (0%)	0 (0%)	
Location	Mental Health	39 (57%)	17 (57%)	22 (56%)	$\chi^2 = 0.00$
	Youth Corrections	30 (43%)	13 (43%)	17 (44%)	

*$p < .05$
[a] Legal guardianship at the time of Wave 1 participation. Data available for 68 participants.

Consistent with Wave 1, Wave 3 demographics were similar for males and females in terms of age, location of recruitment, and legal guardianship status, with significant differences found only with respect to ethnicity; more males than females were of Caucasian ethnicity (94% versus 64%), and more females than males were of Aboriginal ethnicity (28% versus 1%).

To examine the effects of sample losses, the retained Wave 3 sample ($n = 69$) was compared to the remaining 72 Wave 1 participants on multiple demographic indicators. Results of these analyses revealed that the Wave 3 participants were representative of the original Wave 1 sample in terms of legal guardianship ($\chi^2[1, N = 141] = 2.15, p > .05$) and age ($F[1, 139] = 0.06, p > .05$). However, the Wave 3 sample was over-represented by female participants compared to the even distribution of gender at Wave 1 ($\chi^2[1, N = 141] = 6.67, p < .05$). In addition, the Wave 3 sample was under-represented by youth recruited from the youth forensic service versus the mental health facility ($\chi^2[1, N = 141] = 4.39, p < .05$). In terms of ethnicity, the retained Wave 3 sample over-represented Caucasian participants and under-represented Aboriginal participants compared to Wave 1 ($\chi^2[1, N = 141] = 7.14, p < .05$).

The mental health profiles at Wave 1 of the retained Wave 3 sample (n = 69) were also compared to those who did not participate in Wave 3. No statistically significant differences in the lifetime and current individual mental health diagnoses, as well as the level of current or lifetime comorbidity (i.e., number of diagnoses) were found[1]. Wave 3 participants were therefore representative of the Wave 1 participants in terms of diagnostic profile.

2.2. Measures

Wave 1

*Diagnostic Interview for Children and Adolescents-Revised (*DICA-R; Reich, 2000) was used to assess current and lifetime rates of CD, substance dependence (SD; alcohol, marijuana, and street drugs), ADHD, major depressive episode (MDE), and PTSD[2]. The DICA-R is a structured, computer-assisted interview that maps onto the DSM-IV diagnostic criteria. *Current* rates of mental disorders were defined as meeting full diagnostic criteria at the time of the interview, whereas *lifetime* rates of mental disorders were defined as meeting full diagnostic criteria at one point in their lives. The DICA-R required symptoms to be present for at least 1 month (MDE); six months (CD); and one year (SD, ADHD).

Research conducted on the DICA-R has shown good validity and test-retest reliability ranging from κ = .59 to .92 depending on the disorder being measured (de la Osa, Ezpeleta, Domenech, Navarro, & Losilla, 1997). Overall, the de la Osa et al. study found that internalizing disorders had higher test-retest reliability compared to

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[1] For example, there were no differences in lifetime individual diagnoses of depression (χ^2[1, n = 141] = 0.13, p > .05), conduct disorder, (χ^2[1, n = 141] = 1.75, p > .05), substance dependence, (χ^2[1, n = 141] = 0.29, p > .05), ADHD, (χ^2[1, n = 141] = 0.31, p > .05) and PTSD (χ^2=0.08, p > .05) for those who participated in Wave 3 versus those who did not.

[2] Generalized Anxiety Disorder (GAD) was originally included as a diagnosis measured; however, because of time limitations GAD questions in the DICA-R were dropped. GAD tends to have lower reliability estimates and therefore there is greater concern about coherence of the disorder, compared to other diagnoses measured.

externalizing disorders with the exception of CD, which had the highest reliability (κ = .92).

The *Clinician-Administered Posttraumatic Stress Disorder Scale* (CAPS; Blake et al., 1995) was used to measure lifetime PTSD diagnoses for a portion of the youth in this sample. The CAPS is a 30-item structured interview which corresponds directly to the DSM-IV PTSD diagnostic criteria and is considered the gold standard diagnostic measure of PTSD. The CAPS continually demonstrates excellent inter-rater reliability ($\kappa \geq .90$; Cicchetti, Fontana, & Showalter, 2009; Weathers, Keane, & Davidson, 2001). Internal consistency has also been found to be excellent ($\alpha > .90$; Pupo et al., 2011). The CAPS has also been compared to other established semi-structured interviews with excellent results, indicating high convergent validity (Pupo et al., 2011).

Wave 3

The *Adult Self Report* (ASR; Achenbach & Rescorla, 2003) was used to assess clinically-elevated antisocial behaviour, depressive symptoms and ADHD symptoms. Participants completed the ASR electronically via a websurvey or in paper-pencil format as part of the Module 2 self-report package. The ASR is a 126-item self-report for individuals 18-59 years of age, assessing a broad range of mental health symptoms within the previous six months. Items are scored on a 3-point scale: 0 (*not true*), 1 (*sometimes or somewhat true*), and 2 (*very true or often true*). The ASR produces a mental health profile of empirically based syndrome scales as well as DSM-oriented scales. The DSM-oriented scales were developed by consensus expert panels by choosing the ASR items that were most closely related to DSM-IV diagnostic categories (Achenbach, Dumenci, & Rescorla, 2003). The scales were then normed on the same normative sample as the empirically based syndrome scales. For the purpose of the current study, the following DSM-oriented scales were used: Depressive Problems, ADHD Problems and Antisocial Personality Problems. Reliability of these particular scales were deemed acceptable; test-retest (r = .80 to .89) and internal consistencies (α = 0.79 to 0.84; Achenbach & Rescorla, 2003). With regards to convergent validity, the DSM-oriented scales are highly correlated with other established clinical rating scales (Achenbach & Rescorla, 2003) and have predicted future DSM-IV diagnoses (Hofstra, van der Ende, & Verhulst, 2002). Clinically-elevated levels of mental health symptoms

were determined to be present if the participant's scores were in the Borderline (*T* score of 65; 93rd percentile) or Clinical Range (*T* Score of 70; 97th percentile). The Borderline Range indicates that "enough problems have been reported to be of concern" (p. 111, Achenbach & Rescorla, 2003) and thus warrants an appropriate cut off point to measure clinically elevated symptoms.

PTSD Checklist – Civilian Version (PCL-C; Weathers, Litz, Huska, & Keane, 1994) was used to measure clinically elevated PTSD symptoms. The PCL-C was completed either in-person or over the phone as part of the Module 1 interview. The PCL-C is a 17 item self-report measure that maps onto DSM-IV PTSD diagnostic criteria. Symptoms occurring in the past month are rated on a 5-point scale ranging from 1 (*not at all bothersome*) to 5 (*extremely bothersome*). The PCL-C yields subscales for DSM-IV Criteria B (Intrusions), C (Avoidance), and D (Arousal). Clinically-elevated symptoms were determined to be present if individuals endorsed at least one item from Criteria A, at least three items from Criteria B, and at least two items from Criteria C (Weathers et al., 1994). This scoring method has established validity (McDonald & Calhoun, 2010). A recent review of multiple studies concluded that the PCL-C has acceptable test-retest reliability (r =.75 to .88), internal consistency ($\alpha \geq$ .80) as well as convergent validity with the CAPS (Wilkins, Lang, & Norman, 2011).

Structured Clinical Interview for DSM-IV, Axis I Disorders – Alcohol and Substance Use Modules – Alternate Version (SCID – I; First, Spitzer, Gibbon, & Williams, 2002) was used to measure current substance dependence diagnoses (present within the past 12 months). The SCID-I was completed in-person or over the phone as part of the Module 1 interview. The SCID-I Alternate Version is a semi-structured clinical interview that maps directly onto the DSM-IV substance dependence diagnostic criteria for alcohol and drug use. Drug dependence was assessed for each individual drug class including sedatives, cannabis, stimulants, opioids, cocaine, and hallucinogens. The SCID-I was administered by trained graduate students, following achievement of adequate inter-rater reliability. The SCID-I is considered the gold standard for assessing psychiatric disorders. Studies measuring the reliability of the substance use disorders module have found excellent test-retest reliability (κ =.76 to .77;

Zanarini et al., 2000) and fair to excellent inter-rater reliability (κ = .65 to .77; Lobbestael, Leurgans, & Arntz, 2011).

The *Mental Health Service Utilization Questionnaire* (see Appendix A) assessed service utilization and barriers to receiving care in the previous six months.   This questionnaire was completed either in-person or over the phone as part of the Module 1 interview.   Participants indicated whether they had accessed various service providers from a list of 10 options (e.g., psychiatrist, therapist, self-help groups) or had taken prescribed medication for their mental health.   To measure barriers to accessing services, youth indicated yes or no to a list of 19 common barriers, both structural (e.g. did not know where to go, could not get an appointment) and individual (e.g., did not think could be helped).   The list of common barriers was based on the Healthcare for Communities (HCC) study, which interviewed a representative US population on topics of mental health need and barriers to care (Strum & Sherbourne, 2001).   This list of barriers has been used in subsequent studies examining barriers to care (e.g., Craske et al., 2005), although it`s psychometric properties have not been reported.

Measuring mental health symptoms over time

To measure mental health symptoms over time, both diagnostic interviews as well as self-report measures of clinically-elevated symptoms were used.   Table 3 outlines the assessment tool and corresponding thresholds used to determine the presence of clinically-elevated mental health symptoms at Wave 1 and 3.

Table 2.3.   Measures used to assess mental health problems

	Wave 1		Wave 3	
	Measure	**Threshold**	**Measure**	**Threshold**
Antisocial Behaviour	DICA-R; Conduct Disorder	DSM-IV diagnostic criteria	ASR; Antisocial Personality Problems (DSM Scale)	T score > 65; 93rd percentile
Substance Dependence	DICA-R; Substance Dependence	DSM-IV diagnostic criteria	SCID-I; Substance Dependence	DSM-IV diagnostic criteria
ADHD Problems	DICA-R; ADHD	DSM-IV diagnostic criteria	ASR; ADHD Problems (DSM Scale)	T score > 65; 93rd percentile
Depressive Problems	DICA-R; Major Depressive Episode	DSM-IV diagnostic criteria	ASR; Depressive Problems (DSM Scale)	T score > 65; 93rd percentile
PTSD Problems	DICA-R, CAPS; PTSD	DSM-IV diagnostic criteria (B, C, D only)	PCL-C; PTSD Symptoms (B, C, D only)	Symptoms present in all subscales (Criteria B, C, D)

2.3. Results

2.3.1.   Psychiatric diagnoses in adolescence (Wave 1)

The following Wave 1 results were reported in the author's MA thesis (2009). However, for the purpose of the current study, it is important to understand the mental health needs of youth during adolescence. Therefore, results are summarized below.

Table 4 outlines rates of lifetime and current DSM-IV mental disorders at Wave 1. Results demonstrated that the rates of CD were similar for lifetime and current diagnoses, as 76% of youth met criteria for CD at one point in their life, and 69% met criteria for the disorder in the last 6 months. The SD prevalence rates were also quite similar, 74% of all youth met criteria for SD in their lifetime, whereas 70% of youth met criteria for SD in the past year. MDE lifetime and current prevalence rates were only slightly different, 36% versus 24% respectively. On the other hand, the percentage of

youth who had a lifetime diagnosis of ADHD (67%) was quite a bit higher than those who currently had a diagnosis of ADHD (43%). Information on current PTSD diagnoses was not available as this question was not asked on the DICA-R.

Further examination of the lifetime and current needs of these youth revealed important gender differences. Table 4 shows that gender differences for mental health needs are similar for both lifetime and current diagnostic profiles. Males and females in the sample had comparable rates of CD, ADHD, and SD, whereas significantly more females than males experienced lifetime and current rates of MDE. Females also experienced significantly higher rates of PTSD compared to males in their lifetime. This is consistent with the prediction that more females than males experience internalizing disorders (MDE and PTSD) in addition to the similar rates of externalizing behavioural problems (ADHD, CD) and SD.

Table 2.4.   Lifetime and current psychiatric disorders at Wave 1 by gender

	Lifetime				Current			
	Total (N=141)	Male (n=76)	Female (n=65)	χ^2	Total (N=141)	Male (n=76)	Female (n=65)	χ^2
CD	107 (76%)	61 (80%)	46 (71%)	1.72	97 (69%)	53 (70%)	44 (68%)	.07
ADHD	95 (67%)	51 (67%)	44 (68%)	.01	60 (43%)	31 (41%)	29 (45%)	.21
SDD	105 (74%)	54 (71%)	51 (79%)	1.01	99 (70%)	52 (68%)	47 (72%)	.25
MDE	51 (36%)	19 (25%)	32 (49%)	8.91**	34 (24%)	13 (17%)	21 (32%)	4.43*
PTSD[a]	32 (31%)	8 (16%)	24 (44%)	9.48**	-	-	-	-

[a] PTSD data was available for 103 youth (49 male, 54 female)
* $p < 0.05$; ** $p < 0.01$

In light of the fact that the lifetime and current diagnostic profiles are similar for both males and females, the focus of the following analyses will be on examining lifetime diagnoses.

2.3.2. Comorbidity of psychiatric diagnoses in adolescence (Wave 1)

Rates of comorbidity were extremely high among this population, as 60% had at least three of the lifetime mental disorders measured (see Table 5). Results indicated that females were more clinically impaired than their male counterparts, as significantly more females than males met criteria for at least four lifetime mental disorders, 43% versus 17% respectively.

Table 2.5.   Lifetime level of comorbidity at Wave 1 by gender

	Total (N = 141)	Male (n = 76)	Female (n = 65)	χ^2
At least 1 DX	130 (92%)	68 (89%)	62 (95%)	1.70
At least 2 DX	119 (84%)	62 (82%)	57 (88%)	0.99
At least 3 DX	84 (60%)	45 (59%)	39 (60%)	0.01
At least 4 DX	41 (29%)	13 (17%)	28 (43%)	11.46**
All 5 DX	16 (11%)	5 (7%)	11 (17%)	3.73

**p<0.01

To look more closely at the mental health needs of those with conduct disorder, Table 6 outlines lifetime rates of comorbidity for those with conduct disorder. Results indicated that significantly more females than males met criteria for at least three or four lifetime psychiatric disorders.

Table 2.6.   **Lifetime comorbidity of youth with conduct disorder at Wave 1 by gender**

CD DX and	Total (n=107)	Male (n=61)	Female (n= 46)	χ^2
At least 1 DX	104 (97%)	58 (95%)	46 (100%)	2.33
At least 2 DX	81 (76%)	44 (72%)	37 (80%)	.98
At least 3 DX	40 (37%)	13 (21%)	27 (59%)	15.66***
All 4 DX	16 (15%)	5 (8%)	11 (24%)	5.09*

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

2.3.3.   Clinically elevated mental health symptoms in young adulthood (Wave 3)

Table 7 outlines rates of clinically-elevated mental health problems at Wave 3. Although mental health problems generally declined from Wave 1 to 3, rates of clinically-elevated mental health problems continued to be alarmingly high compared to community estimates (Kessler Chiu, Demler, Merikangas, & Walters, 2005). Externalizing problems continued to be the most prominent mental health concerns with approximately half of the youth having clinically-elevated antisocial personality problems (49%), ADHD problems (46%) and substance dependence (51%). A significant number of youth also exhibited high levels of internalizing symptoms, as approximately one third had clinically-elevated depressive problems (36%) and PTSD symptoms (29%). Contrary to Wave 1 results, no statistically significant gender differences were found among rates of clinically-elevated mental health problems, indicating that males and females were equally affected by mental health concerns in young adulthood.

Table 2.7. **Clinically-elevated mental health symptoms at Wave 3 by gender**

	Total (n = 61)	Male (n = 24)	Female (n = 37)	χ^2
Antisocial Behaviour	30 (49%)	15 (63%)	15 (41%)	2.81
ADHD Problems	28 (46%)	8 (33%)	20 (54%)	2.52
Substance Dependence[a]	32 (51%)	13 (50%)	19 (51%)	0.01
Depressive Problems	22 (36%)	6 (25%)	16 (43%)	2.10
PTSD[b] Symptoms	19 (29%)	6 (22%)	13 (34%)	1.10

[a] Substance Dependence Data is available for a slightly different subset of 63 youth (26 males, 37 females)
[b] PTSD data is available for a slightly different subset of 65 youth (27 males, 38 females)

2.3.4. Comorbidity of clinically-elevated mental health symptoms in young adulthood (Wave 3)

Table 8 shows the rates of comorbidity among youth at Wave 3. Despite a general decline in mental health problems from Wave 1 to 3, rates of comorbidity remained high, as over half of the youth (57%) reported at least two clinically-elevated mental health problems. Contrary to Wave 1 results (Table 5), overall rates of comorbidity were not found to significantly differ by gender.

Table 2.8.   **Comorbidity of clinically-elevated mental health symptoms at Wave 3 by gender**

	Total (*n*=56)	Male (*n*=21)	Female (*n*=35)	χ^2
At least 1 DX[a]	44 (79%)	16 (76%)	28 (80%)	0.11
At least 2 DX	32 (57%)	10 (48%)	22 (63%)	1.24
At least 3 DX	24 (43%)	8 (38%)	16 (46%)	0.31
At least 4 DX	12 (21%)	4 (19%)	8 (23%)	0.11
All 5 DX	4 (7%)	0 (0%)	4 (11%)	0.11

[a] DX represents diagnoses of substance dependence and clinically elevated symptoms of ADHD, PTSD, antisocial behaviour, and depressive problems.

To further understand the mental health needs of those engaging in high rates of antisocial behaviour, Table 9 outlines the rates of comorbidity by gender for those with clinically-elevated antisocial behaviour at Wave 3. Results indicated that significantly more females than males with elevated antisocial behaviour reported having at least one (100% versus 73% respectively), two (93% versus 60% respectively) or four (27% versus 0% respectively) additional clinically-elevated mental health problems. Gender differences were also found at Wave 1 for those with conduct disorder (see Table 6), suggesting that females with high rates of antisocial behaviour continued to exhibit more complex mental health profiles into young adulthood compared to their male counterparts.

Table 2.9.   Comorbidity of youth with clinically-elevated antisocial behaviour at Wave 3 by gender

	Total (*n*=30)	Male (*n*=15)	Female (*n*= 15)	χ^2
At least 1 DX[a]	26 (87%)	11 (73%)	15 (100%)	4.62*
At least 2 DX	23 (77%)	9 (60%)	14 (93%)	4.66*
At least 3 DX	12 (40%)	4 (27%)	8 (53%)	2.22
All 4 DX	4 (13%)	0 (0%)	4 (27%)	4.62*

*p < .05

[a] DX represents diagnoses of substance dependence and clinically elevated symptoms of ADHD, PTSD and depressive problems.

2.3.5.   Stability of mental health symptoms from adolescence (Wave 1) to young adulthood (Wave 3)

Descriptive statistics (prevalence rates) were used to assess the stability of diagnoses during adolescence (Wave 1) to clinically-elevated mental health problems (Wave 3). The stability of mental health problems were assessed by examining the percentage of youth who continued to have clinically-elevated mental health problems from Wave 1 to 3. Externalizing problems (substance dependence, ADHD, antisocial behaviour) appeared more stable than internalizing problems (depression, PTSD) from Wave 1 to 3 based on prevalence rates. With regards to externalizing problems, 61% of youth with substance dependence at Wave 1 continued to have substance dependence at Wave 3; 56% of youth with CD at Wave 1 continued to have clinically-elevated antisocial behaviour at Wave 3; and 54% of youth with ADHD at Wave 1 continued to have clinically-elevated ADHD problems at Wave 3. In terms of internalizing problems, 43% of those with major depressive episode at Wave 1 continued to have clinically-elevated depressive problems at Wave 3; and 39% of those with PTSD at Wave 1 continued to have clinically-elevated PTSD symptoms at Wave 3. Chi-square analyses revealed no gender differences in the prevalence rates of those who continued to have mental health problems in Wave 3 versus those who did not for substance dependence (χ^2 [1, n = 46] = 0.42, p > .05); ADHD problems (χ^2 [1, n = 39] = 2.56, p > .05); antisocial

behaviour (χ^2 [1, n = 41] = 1.43, p > .05); depressive problems (χ^2 [1, n = 21] = 0.13, p > .05); and PTSD problems (χ^2 [1, n = 18] = .05, p > .05).

To further understand the stability of mental health problems over time, the prevalence rates of those who had a new onset of symptoms from Wave 1 to 3, those whose symptoms remitted from Wave 1 to 3, and those with a continued absence of symptoms were examined (see Table 10). With regards to those with a new onset of clinically-elevated problems (absent at Wave 1 and present at Wave 3), more youth had an onset of internalizing problems (21% with either depressive or PTSD problems) compared to externalizing problems (13% with antisocial behaviour; 10% with ADHD problems; and 6% with substance dependence).

To examine if the stability of clinically-elevated mental health problems varied by gender a series of chi-square analyses were run. The only significant gender difference detected was in the stability of clinically-elevated depressive problems, as more females than males had depressive problems present at both Wave 1 and 3 (22% versus 4%), and more males than females remained in the normative range at both Wave 1 and 3 (29% versus 67%).

Table 2.10.   Stability in clinically-elevated mental health problems from Wave 1 to 3 by gender

		Total (*n*=61)	Male (*n*=24)	Female (*n*= 37)	χ^2
Antisocial Behaviour	Present W1 & W3	22 (36%)	11 (46%)	11 (30%)	2.94
	Present W1/Absent W3	19 (31%)	6 (25%)	13 (35%)	
	Absent W1/Present W3	8 (13%)	4 (17%)	4 (11%)	
	Absent W1 & W3	12 (20%)	3 (12%)	9 (24%)	
Substance Dependence	Present W1 & W3	28 (44%)	12 (46%)	16 (43%)	1.78
	Present W1/Absent W3	18 (29%)	6 (23%)	12 (32%)	
	Absent W1/Present W3	4 (6%)	1 (4%)	3 (8%)	

	Absent W1 & W3	13 (21%)	7 (27%)	6 (16%)	
ADHD Problems	Present W1 & W3	22 (36%)	5 (21%)	17 (46%)	4.02
	Present W1/Absent W3	17 (27%)	8 (33%)	9 (24%)	
	Absent W1/ Present W3	6 (10%)	3 (13%)	3 (8%)	
	Absent W1 & W3	16 (26%)	8 (33%)	8 (22%)	
Depressive Problems	Present W1 & W3	9 (15%)	1 (4%)	8 (22%)	10.08*
	Present W1/Absent W3	12 (20%)	2 (8%)	10 (27%)	
	AbsentW1/Present W3	13 (21%)	5 (21%)	8 (22%)	
	Absent W1 & W3	27 (44%)	16 (67%)	11 (29%)	
PTSD Problems	Present W1 & W3	7 (13%)	1 (4%)	6 (18%)	6.96
	Present W1/ Absent W3	11 (20%)	2 (9%)	9 (26%)	
	Absent W1/ Present W3	12 (21%)	5 (23%)	7 (21%)	
	Absent W1 & W3	26 (46%)	14 (64%)	12 (35%)	

*$p < .05$
W1 = Wave 1; W3 = Wave 3

2.3.6.   Service use in young adulthood (Wave 3)

Only those who had at least one clinically-elevated mental health problem at Wave 3 were included in the service use and barriers to care analyses. Of the 77 youth who completed the Mental Health Service Use and Barriers Questionnaire, 61 had at least one clinically-elevated mental health problem (antisocial behaviour, ADHD, PTSD, substance dependence or depressive problems).

Table 11 shows that among those with a clinically-elevated mental health problem, approximately half (53%) had accessed a service for their mental health in the previous six months. A series of chi-square analyses were run to examine if type of service accessed differed by gender. When cell sizes were less than five, Fisher's exact test (Fisher, 1922) was used as a more robust estimate of significance at the α < .05 level. Therapy (25%) and self-help groups such as AA or NA (20%) were the most common types of services accessed, with no statistically-significant gender differences.

Table 2.11.   Service utilization at Wave 3 by gender

Service Type	Total (n = 61)	Male (n = 33)	Female (n = 44)	χ^2
Any Service	32 (53%)	11 (42%)	21 (60%)	1.87
Therapy	15 (25%)	4 (15%)	11 (31%)	2.07
Psychiatrist	7 (12%)	3 (12%)	4 (11%)	0.00
Acute Mental Health	7 (12%)	3 (12%)	4 (11%)	0.00
Family Doctor	3 (5%)	1 (4%)	2 (6%)	0.11
Nurse Practitioner	3 (5%)	1 (4%)	2 (6%)	0.11
Self Help (e.g., AA or NA)	12 (20%)	7 (27%)	5 (14%)	1.51
Religious figures	5 (8%)	2 (8%)	3 (9%)	0.02

Nearly one third of youth (28%) with a clinically-elevated mental health problem were on medication for psychiatric conditions including depression, anxiety, ADHD, and psychotic symptoms, with no gender differences observed (χ^2 [1, n = 61] = 1.03, p >.05).

To examine if service use varied by mental health problem, a series of chi-square analyses were run comparing individual clinically-elevated mental health problems to those with at least one other type of clinically-elevated mental health problem (See Tables 12 to 16). For cell sizes less than five, Fisher's exact test (Fisher, 1922) was used as a more robust estimate of significance at the α < .05 level. Comorbidity was not

controlled for as a result of insufficient sample size; therefore, these analyses are only exploratory. Results indicated that youth with clinically-elevated depressive or ADHD problems were significantly more likely to access a service for their mental health needs in the previous six months compared to youth with other clinically-elevated mental health problems (antisocial behaviour, PTSD, substance dependence). Regarding specific types of services, those with substance dependence were more likely to access self-help groups, and those with depressive symptoms were more likely to access therapy or acute mental health services.

Table 2.12.   Service utilization at Wave 3 by clinically-elevated depressive problems

	Clinically-Elevated Depressive Problems			
	Total **(*n*=55)**	**Present** **(*n*=21)**	**Absent** **(*n*=34)**	**χ^2**
Any Service Use	27 (49%)	16 (76%)	11 (32%)	9.98**
Therapy	14 (25%)	9 (43%)	5 (15%)	5.42*
Psychiatrist	7 (13%)	3 (14%)	4 (12%)	0.07
Acute Mental Health	6 (11%)	5 (24%)	1 (3%)	5.82*
Self Help	8 (15%)	3 (14%)	5 (15%)	0.00
Family Doctor	3 (5%)	2 (10%)	1 (3%)	1.09
Nurse	2 (4%)	1 (5%)	1 (3%)	0.12
Other	5 (9%)	3 (14%)	2 (6%)	1.11

*p < .05; **p < .01

Table 2.13.   Service utilization at Wave 3 by clinically-elevated PTSD symptoms

	Clinically Elevated PTSD Symptoms			
	Total (n = 60)	Present (n = 18)	Absent (n = 42)	χ^2
Any Service Use	32 (53%)	9 (50%)	23 (55%)	0.12
Therapy	15 (25%)	3 (17%)	12 (29%)	0.33
Psychiatrist	7 (12%)	2 (11%)	5 (12%)	0.01
Acute Mental Health	7 (12%)	3 (17%)	4 (10%)	0.62
Self Help	12 (20%)	3 (17%)	9 (21%)	0.18
Family Doctor	3 (5%)	0 (0%)	3 (7%)	1.35
Nurse	3 (5%)	2 (11%)	1 (2%)	2.02
Other	5 (8%)	2 (11%)	3 (7%)	0.26

Table 2.14. Service utilization at Wave 3 by clinically-elevated antisocial behaviour problems

	Clinically Elevated Antisocial Behaviour Problems			
	Total (n = 55)	Present (n = 34)	Absent (n = 21)	χ^2
Any Service Use	27 (49%)	15 (44%)	12 (57%)	0.88
Therapy	14 (25%)	6 (18%)	8 (38%)	2.86
Psychiatrist	7 (13%)	3 (9%)	4 (19%)	1.22
Acute Mental Health	6 (11%)	4 (12%)	2 (10%)	0.07
Self Help	8 (15%)	5 (15%)	3 (14%)	0.00
Family Doctor	3 (5%)	2 (6%)	1 (5%)	0.03
Nurse	2 (4%)	2 (6%)	0 (0%)	1.28
Other	5 (9%)	4 (12%)	1 (5%)	0.77

Table 2.15.   Service utilization at Wave 3 by clinically-elevated ADHD problems

	Total (n = 55)	Present (n = 31)	Absent (n = 24)	x^2
		Clinically Elevated ADHD Problems		
Any Service Use	27 (49%)	19 (61%)	8 (33%)	4.23*
Therapy	14 (25%)	9 (29%)	5 (21%)	0.48
Psychiatrist	7 (13%)	4 (13%)	3 (13%)	0.00
Acute Mental Health	6 (11%)	5 (16%)	1 (24%)	1.99
Self Help	8 (15%)	6 (19%)	2 (8%)	1.32
Family Doctor	3 (5%)	3 (10%)	0 (0%)	2.46
Nurse	2 (4%)	1 (3%)	1 (4%)	0.03
Other	5 (9%)	3 (10%)	2 (8%)	0.03

*$p < .05$

Table 2.16.   Service utilization at Wave 3 by substance dependence diagnosis

	Substance Dependence Diagnosis			
	Total (*n* = 55)	**Present** (*n* = 21)	**Absent** (*n* = 34)	χ^2
Any Service Use	30 (51%)	21 (60%)	9 (38%)	2.88
Therapy	14 (24%)	9 (26%)	5 (21%)	0.19
Psychiatrist	7 (12%)	4 (11%)	3 (13%)	0.02
Acute Mental Health	7 (12%)	5 (14%)	2 (8%)	0.48
Self Help	12 (20%)	11 (35%)	1 (4%)	6.53*
Family Doctor	2 (3%)	0 (0%)	2 (8%)	3.02
Nurse	3 (5%)	1 (3%)	2 (8%)	0.89
Other	5 (8%)	2 (6%)	3 (13%)	0.85

*$p < .05$

2.3.7.   Barriers to accessing services in young adulthood (Wave 3)

Table 17 shows that nearly half (43%) of participants in young adulthood identified experiencing at least one barrier to receiving mental health care in the previous six months. A series of chi-square tests were run to determine if type of barrier differed by gender. For cell sizes smaller than five, Fisher's exact test was used. The most common barriers reported were: 'could not afford treatment' (16%), 'did not want services' (15%), or were 'embarrassed or worried about receiving services' (13%).

Table 2.17.   Barriers to care at Wave 3 by gender

Barrier	Total (*n* = 61)	Male (*n* = 26)	Female (*n* = 35)	χ^2
Any Barrier	26 (43%)	9 (35%)	17 (49%)	1.19
Could not afford treatment	10 (16%)	4 (15%)	6 (17%)	0.03
Difficulty obtaining an appointment	6 (10%)	2 (8%)	4 (11%)	0.24
Other priorities/responsibilities got in the way	5 (8%)	1 (4%)	4 (11%)	1.14
Did not know where to go	4 (7%)	2 (8%)	2 (6%)	0.10
Limited transportation options	3 (5%)	2 (8%)	1 (3%)	0.75
Embarrassed or worried about receiving services	8 (13%)	2 (8%)	6 (17%)	1.17
Did not think could be helped	3 (5%)	0 (0%)	3 (9%)	2.34
Did not want services	9 (15%)	4 (15%)	5 (14%)	0.01
Other	2 (3%)	0 (0%)	2 (6%)	1.54

A series of chi-square analyses were run to determine if barriers to care differed by type of clinically-elevated mental health problem. Fisher's exact test was used when cell sizes were smaller than five. Results indicated that more youth with depressive problems than youth without depressive problems experienced at least one barrier to care (62% versus 32%; χ^2 [1, *n* = 55] = 4.61, *p* < .05). Regarding specific types of barriers, more youth with depressive problems than without depressive problems identified that they could not afford treatment (29% versus 6%; χ^2 [1, *n* = 55] = 5.38, *p* < .05) or that other responsibilities took priority over accessing mental health services (19% versus 0%; χ^2 [1, *n* = 55] = 6.98, *p* < .05). Youth *without* ADHD problems were more likely than those with ADHD problems to indicate that they did not want mental

health services (29% versus 6%; χ^2 [1, $n = 55$] = 5.10, $p < .05$). Youth *without* substance dependence were more likely than those with substance dependence to indicate that difficulty obtaining an appointment acted as a barrier (21% versus 3%, χ^2 [1, $n = 59$] = 5.04, $p < .05$). On the other hand, barriers to care did not differ for those with clinically-elevated levels of antisocial behaviour or PTSD problems.

Chapter 3.

STUDY TWO

The purpose of Study Two was to provide a more in-depth understanding of mental health service use and barriers to care for youth with serious behaviour problems. The research questions and hypotheses are as follows:

1) What are youths' positive and negative experiences with mental health and related support services?

Little research on experiences with mental health services has been conducted with Canadian youth with serious behaviour problems. However, based on research in the US and Great Britain (Abram et al., 2008; Walsh et al., 2011), it is predicted that youth would not have felt that their needs were met by services.

2) What barriers prevented youths from accessing/accepting mental health or support services?

It is expected that youth will report a wide range of structural, systemic, psychological and attitudinal barriers to receiving services. Based on previous research (Abram et al., 2008; Smith et al., 2008), it is predicted that long waitlists, limited knowledge on where to access services, and the belief that the problem would go away on its own would be reported.

3.1. Methods

3.1.1. Design overview

A subsample of youth participated in a qualitative study funded in part by the BC Representative for Children and Youth (RCY) (Ref 17663). Ethical approval was obtained from the SFU REB on October 18, 2011. A semi-structured interview guide was created in collaboration with the RCY (Appendix B).

Fundamental qualitative description methods were used, as outlined by Sandelowski (2000). Fundamental qualitative analysis is a suitable framework when the goal of the research is to answer practical, policy-relevant questions rather than developing a theoretical understanding of a topic (Daly, 2007). According to Sandelowski (2000), fundamental qualitative description methods are appropriate when "straight descriptions of phenomena are desired" (p. 334). Data analysis strives to employ as little interpretation of the data as possible compared to other common qualitative methods, e.g., grounded theory. Because any description requiring human perception involves some degree of interpretation, however, guidelines for analysis are important to help ensure careful and accurate depictions of the data. *Conventional content analysis*, as described by Hsieh and Shannon (2005), was therefore used as a framework for data analysis (discussed further in the data analysis section below).

3.1.2. Population

Sample selection

A subsample of the GAP study's original participants was selected to participate in the qualitative study. Purposeful sampling techniques (Patton, 2002) were used to identify cases that would be "information-rich" for the topic being studied. The qualitative study's main goal was to understand how youth with mental health needs experienced services, so participants with the highest need (greater number of mental disorders) during adolescence (Wave 1) were chosen. The decision to select youth with the greatest level of need during adolescence was based on the assumption that they would provide the richest information about accessing mental health services.

The participants with high comorbidity during adolescence (Wave 1) were further divided into two groups based on their comorbidity level (low or high) during young adulthood (Wave 3). This approach enabled a comparison between those who continued to have high comorbidity into young adulthood and those whose mental health needs decreased over time resulting in low comorbidity. The initial plan was to interview 10 youth with high comorbidity in young adulthood (five females, five males) and 10 youth with low comorbidity in young adulthood (five females, five males). To minimize location bias, an equal number of participants who had originally been recruited from youth corrections and a mental health facility were selected. Only youth who participated in data collection during Wave 1 and 3 were considered for participation. Priority was then given to contacting and interviewing youth living in the Lower Mainland because of the importance of conducting in-person interviews.

3.1.3. Procedure

Recruitment

During Wave 3 data collection (2008-2010) participants provided consent to be contacted to participate in future research studies over the following five years. When participants provided consent during Wave 3 data collection, they were also asked to indicate multiple contact options for the purpose of follow-up studies. Once participants were contacted and informed consent was received, participants were interviewed in-person at a mental health facility in the Lower Mainland. Phone interviews were also offered if participants lived outside the Lower Mainland or if it was inconvenient for them to attend the in-person interview.

Interview

Participants consented to having the interview audio recorded as well as allowing researchers to use de-identified quotes. In addition, risks and benefits associated with participating and the limits of confidentiality were explained. More specifically, participants were informed that the information they provided during the interview would be kept strictly confidential unless they disclosed that: 1) they were going to hurt themselves; 2) they were planning on hurting someone else; or 3) a child was at risk of

being harmed or neglected. If any of these situations arose, participants were informed that third parties, including the Ministry of Children and Family Development or the police, would be contacted to ensure the safety of the participants, children, and identifiable individuals at risk of being harmed. To provide a comfortable environment, youth were also offered snacks and beverages during the in-person interviews.

To facilitate participants' recollection of the past, a timeline was used as a visual aid to record life events and the services used. Participants were initially asked to recall important events in their lives that had had either a positive or negative impact on them. This provided a framework for reporting the ages when they recalled receiving various mental health and support services. Despite the fact that the interviewer had knowledge of participants' previous mental health functioning, questions were carefully created without assuming a history of mental illness. For example, youth were asked if they had ever experienced *"stress that was so great that it became difficult to cope or that they became concerned about their mental health".* Youth were asked to comment on their positive and negative experiences with services and any barriers to receiving care (see Appendix B for interview guide).

Participation in the study took between one and two hours. Youth were compensated $100 cash for their participation; the SFU REB approved this amount as being appropriate and non-coercive. Following the interview, all youth were asked how they were feeling and offered the opportunity to discuss any thoughts and feelings that arose during the interview. All youth living in the Lower Mainland were then given a list of youth-friendly services (e.g., mental health, shelters, housing) and encouraged to seek follow up. For all individuals living outside the Lower Mainland, the interviewer researched relevant services in their region and provided them with the information. In addition, if participants asked the interviewer directly about how to access mental health services, relevant resources (e.g., self-help book titles, clinic phone numbers) were provided.

Mental health measures

The subsample of Wave 4 participants chosen for the qualitative study also completed a questionnaire package to assess their current mental health profile. This

information was used to assess their current status as either having low or high comorbidity.

The Adult Self Report (ASR) and the PTSD Checklist-Civilian Version (PCL-C), previously described in Study One, were both completed. As in Wave 3, the ASR assessed DSM-oriented subscales (ADHD, depressive, and antisocial personality problems), and the PCL-C assessed level of PTSD symptoms. In addition, two brief substance use screening measures were completed. Due to time constraints, diagnostic instruments were not administered.

The Drug Abuse Screening Test-20 (DAST; Skinner, 1982) is a 20-item self-report measure of problematic substance use that is utilized for clinical screening and treatment/evaluation research. Responses to the DAST are given as binary (yes/no) items, each valued at one point, yielding a total score ranging from 0 to 20. *The Michigan Alcoholism Screening Test* (MAST; Selzer, 1971) is a 25-item self-report survey of problematic alcohol use. Items are answered either yes or no.

Data analysis

Interviews were transcribed verbatim by four RAs in the Adolescent Health Lab at SFU. RAs were trained and supervised by the author. The transcripts were transferred into qualitative analysis software, NVivo - Version 9 (QSR International, 2011), which was used as an aid to organize the data into meaningful themes.

Conventional content analysis (Hsieh & Shannon, 2005) was chosen as the method to analyze the interview data. Conventional content analysis is an inductive rather than deductive approach, as categories are derived directly from the data as opposed to using a set of predetermined themes based on previous research findings (Berg, 2008). Hsieh and Shannon define content analysis as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p. 1278). The following data analysis steps were taken based on a conventional content analysis approach.

Step 1) The interviewer and author, Gillian Watson, read the data repeatedly to become fully immersed in the data prior to initiating coding.

Step 2) Using NVivo, phrases or portions of the interview were highlighted that captured content related to experiences with mental health services (positive or negative) and barriers to receiving care. This first stage of "open coding" (Strauss & Corbin, 1998) was intended to be overly inclusive so as to not miss relevant data.

Step 3) Multiple "peer debriefing" meetings (Lincoln & Guba, 1985) were held with colleagues in the mental health field to discuss initial impressions and emerging themes in the data. Separate meetings were held with: i) RAs responsible for transcribing the interviews (who had either undergraduate- or graduate-level training in psychology); ii) psychologists, psychiatrists and child and youth workers currently working with youth at the mental health facility that half of the youth were recruited from; iii) staff from the RCY; and iv) SFU Adolescent Health Lab members including Dr. Marlene Moretti and graduate-level clinical psychology students.

At each meeting, initial impressions of the interview themes were presented. Meeting attendees asked questions to help challenge the thinking process and to suggest alternative interpretations of the data. Including multiple views on the interpretation of the data improved "interpretive validity" (Huberman & Miles, 2002) and "credibility" (Lincoln & Guba, 1985) by minimizing the possible subjectivity of one individual.

Step 4) After a one year hiatus to complete clinical internship, the author re-read all the coded interview data and re-analyzed the codes using constant comparison techniques (Strauss & Corbin, 1998). The goal of this procedure was to thoughtfully ensure that each theme represented an independent concept. Each individual piece of coded data was compared to the set of coded data within the same theme, then compared to data within similar themes (Boeije, 2002). A coding scheme, with themes, definitions and examples, was created to make inter-coder reliability possible (Burla et al., 2008).

Step 5) Seven graduate-level RAs from the SFU Adolescent Health Lab contributed to the process of verifying the "interpretive validity" (Huberman & Miles, 2002) of the coding scheme. Three separate meetings were held with two or three RAs in attendance at each (in addition to the author). RAs from each meeting group coded one full interview using the coding scheme. Different interpretations of the data were discussed at the meetings until the group came to a consensus on how to code a particular section.

Ritchie and Spencer (2002) describe the importance of verifying the code scheme when conducting qualitative data analysis for applied policy research. They state, "by adopting a system of annotating the textual data…the process is made visible and accessible to others; others can 'try out' the framework and pool their experiences; the analyst can 'check out' the basis of his or her assumptions" (Ritchie & Spencer, 2002, p. 17). Thus, the purpose of this procedure was to improve "interpretive validity" (Huberman & Miles, 2002) as well as "credibility" (Lincoln & Guba, 1985) by having multiple additional people "check out" the author's potential assumptions.

Step 6) The author then re-coded the entire dataset using the revised coding scheme. The aim of re-coding was to improve "reliability" or "dependability" as a method of increasing the trustworthiness of the data (Lincoln & Guba, 1985).

Step 7) An RA from the SFU Adolescent Health Lab coded four interviews to assess inter-coder (or inter-rater) reliability and improve "confirmability" (Lincoln & Guba, 1985). Effort was made to choose interviews that represented diverse participant experiences and that had the most complexity or ambiguity.

The purpose of assessing inter-coder reliability is to "reduce the error and bias generated when individuals (perhaps unconsciously) take shortcuts when processing the voluminous amount of text-based data generated by qualitative inquiry" (Hruschka et al., 2004, p. 309). To assess inter-coder reliability, the coding of the interviews was compared quantitatively using percentage agreement. Percentage agreement is considered an over-estimate of the reliability, as the calculation does not take into account the level of agreement expected by chance (Burla et al., 2008). More conservative methods of assessing inter-coder reliability (e.g., Cohen's kappa) were not

used as it was not possible to divide the interview data into the required "segments" for this type of analysis (Hruschka et al., 2004). Therefore, percentage agreement was used as a rough estimate of inter-coder reliability, in combination with a more specific investigation of the ways in which raters differed in their coding. A table was created for the purpose of recording and counting concordances and discordances for each theme (Burla et al., 2008). For the discordances, the table was designed to specify which rater coded the data, and whether the other rater either left it blank or assigned a different code. This system allowed a richer understanding of the nature of the discordances.

Step 8) To assess the frequency of the themes, a table for each research question was created. Each table was subdivided by gender and level of comorbidity (i.e., low or high), resulting in four columns (e.g., low comorbidity male, high comorbidity male and so on). This allowed for a rough assessment of whether there were differences in the frequencies of the themes between both gender and level of comorbidity. Only themes that at least approximately 20 percent of the participants discussed were included in the results section.

Step 9) To better understand the barriers to care that youth experienced, themes were further categorized into three levels – structural, familial, and individual. For assessing the positive and negative experiences with services, themes were grouped into similar categories where possible (i.e., opinion about the service itself versus the service provider).

Step 10) To further assess the "credibility" (Lincoln & Guba, 1985) of the results, methodological triangulation was used (Farmer, Robinson, Elliott, & Eyles, 2006). Specifically, the quantitative self-report measures on service utilization, barriers to care and rates of mental health symptoms were compared with the qualitative interview data. The purpose of the qualitative study was to better understand youths' perspectives of their mental health and engagement with services; thus, both convergence and dissonance between the qualitative and quantitative data provided a richer understanding on how youth discussed their mental health depending on the context (e.g., written or verbal) and types of questions (e.g., at the symptom level or the disorder level). Therefore, the use of methodological triangulation was intended to generate

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hypotheses as to why there was dissonance between methodologies (Miles & Huberman, 1994), rather than question the participant's truthfulness.

3.2. Results

3.2.1. Sample interviewed

The subsample interviewed (N = 19) consisted of nine youth with high comorbidity (five females, four males) and ten youth with low comorbidity (five females, five males). In attempt to obtain the desired sample population of 20, 31 youth were contacted. Of the 31 participants, 11 (four high-comorbidity males, four high-comorbidity females, one low-comorbidity male and two low-comorbidity females) could not be reached and one (high-comorbidity male) agreed to participate, but could not complete the interview due to phone connection difficulties. The desired number of high-comorbidity male participants (n = 5) was not achieved, as the author was only able to contact four. These results indicated that the high-comorbidity male participants were more challenging to reach via their previously provided contact details.

Of the 19 participants at Wave 4, 10 were recruited from youth corrections and nine from a mental health facility at Wave 1. Overall, the females interviewed had higher rates of comorbidity at Wave 1 compared to the males. The average number of disorders at Wave 1 for females was four, whereas the average number of disorders for males was 2.6. The difference in the level of comorbidity by gender is representative of the overall sample at Wave 1 as females had higher rates of comorbidity than males. Group membership of level of comorbidity (low or high) was based on Wave 3 data collection. Therefore, to measure participant's group membership at the time of the Wave 4 interview, level of comorbidity was assessed based on their completion of a set of mental health self-report questionnaires. Results of these analyses revealed that 15 of the 19 youth remained within the same group membership as Wave 3. However four youth changed group membership from Wave 3 to Wave 4; two low-comorbidity youth became high-comorbidity youth (one female, one male), and two high-comorbidity youth became low-comorbidity youth (one female, one male). The group membership at the time of the Wave 4 interview was used during qualitative analyses.

3.2.2. Inter-rater reliability

The percentage agreement between coders for four of the interviews was approximately 70%. However, the majority of the discordances (63%) were due to the author assigning more themes than the second coder, instead of the coders assigning conflicting themes to the same piece of data.

A closer examination of the percentage agreement by research question was conducted. Results indicated that percentage agreement was highest for themes related to youths` negative experiences with services (87%) and youths` positive experiences with services (82%). On the other hand, the barriers to care themes had lower percentage agreement between coders (56%). At the time of the inter-rater reliability assessment 16 barriers to care themes existed versus six categories for negative experiences and seven categories for positive experiences. It is therefore hypothesized that the lower percentage agreement for the barriers to care themes was related to a wider variety of available themes to select from. As a result, the barriers to care themes were refined (i.e., either combined or removed) and only the most prevalent themes were reported. An inter-rater reliability assessment of the refined categories was not conducted due to time constraints.

3.2.3. Overview of findings

The results are organized into subsections which describe youths': i) important life events; ii) positive experience with services; iii) negative experiences with services; iv) barriers to receiving services; and v) current life circumstances. Throughout the results section, quotations from the interviews are provided to illustrate the findings. For brevity and clarity, some quotes were edited (i.e., "umm" and "like" were removed); however, the meaning of sentences was not altered.

Important life events

Most youth described significant trauma and losses in their life. Youth described a variety of child maltreatment experiences including: severe neglect from a parent due to their addiction; sexual abuse from a caregiver; and extreme physical and emotional

abuse. As a result, more than half of the youth in the qualitative study had lived in a foster home or group home. The amount of traumatic loss was also profound; many youth had experienced the death of a close family member or friend due to drug use, violence, or suicide.

Participants almost uniformly noted serious and persistent conflict in their relationships with parents that escalated during the transition to adolescence. Eventually, and for a variety of reasons, the conflict within the home became so great that many youth ended up running away from home. In addition to having challenging family relationships, many youth struggled socially at school and described feeling isolated and desperate to fit in. Consequently, youth described finding acceptance from a peer group who was engaging in high-risk behaviour (e.g., substance use, crime).

The period of adolescence for many youth was characterized by living in custody, group homes, substance use treatment programs, or residential treatment settings. In addition, many youth described periods of living on the streets or "couch surfing" with no permanent home. The amount of substance use reported was extremely high; the majority of youth used harmful drugs including crystal methamphetamine, crack, cocaine, and heroin. It was common for females to describe using crystal methamphetamine every day for several years of their adolescence. Complicating the situation, several of the females became involved with older males who were involved in drug dealing. Therefore for periods of their adolescent years, some females were not connected to Ministry protective services or with their guardians because they were living with their boyfriends who financially "took care" of them. Yet these relationships were often quite harmful, filled with violence and emotional abuse.

Most youth in the qualitative study utilized multiple services as adolescents. However, services were typically disjointed, with large gaps in service. A variety of services were used from all levels of care including outpatient mental health, residential treatment centres and inpatient mental health. Fewer services were apparently received either earlier (prior to adolescence) or later (when they were young adults). None of the youth described their families receiving parenting support while they were growing up.

Opinions about these youths' experiences with services ranged from very negative to very positive. However, all participants were able to describe positive aspects of at least one type of service that stood out for them.

Positive experiences with mental health and support services

After discussing their important life events, youth were asked to list the various services they had received throughout their lives. They were then asked the following question: *Looking at the timeline, can you tell me which services you found helpful, and if so, why?* The resulting themes take into account youths' direct answers to this question as well as other related spontaneous comments throughout the interview. Table 18 lists the six most common ways in which mental health or support services positively affected their lives. Youths' responses comprised two overarching categories: 1) what they gained from the content of the service itself, or 2) the positive impact that a specific service provider had on their life. For the purpose of this study, "support services" included drop-in centres, housing support, foster care, one-to-one child and youth care worker involvement, and educational or vocational services; while "mental health services" included more traditional services including psychiatry, inpatient and outpatient assessment and therapy programs, and substance use treatment facilities.

Table 3.1.   Youths' positive experiences with support and mental health services

Service Itself	Helpful at reducing their mental health symptoms
	Positively affected their general health and reduced risk
	Received basic resources or gained life skills
Service Provider	Relationship made a difference
	Advocated for them in times of need
	Preferred supports/mentors with similar experiences

Service Itself – Helpful at reducing their mental health symptoms

Most participants, with the exception of two high comorbidity females and one high comorbidity male, reported finding at least one mental health service helpful throughout their lives. The extent to which participants attributed their wellbeing to the services they received varied dramatically, however, with some youth vaguely reporting that they found a service "helpful", whereas others said they believed that they would not be alive if they had not received particular services. For example, a female participant described: "because of all these services like that are available to me...it's why I have survived, so I don't feel too bad for myself...there's been some people... who really care" (Participant A). Similarly, a male participant felt that the addictions treatment program he attended when he was 17-years-old saved his life.

Other youth talked more specifically about how the various skills they learned through therapy helped them. Participants talked about the benefits of learning social skills, healthy communication strategies or impulse control techniques (i.e., thinking before using violence). Some youth reported that gaining knowledge on the addiction cycle including triggers and relapse prevention was helpful in reducing their substance use. One female participant summarized how each service she received uniquely and positively affected her:

> Well I'd have to say they were all helpful. Just because they gave me the knowledge to be able to help myself in the future when I hit hard situations. The drug and alcohol counselling was good for when I get put in a situation where there's drugs in front of me I can take that step back and think 'no'. I guess the regular counselling has made it so I don't have as much of a quick temper. I have the patience to be able to take a deep breath and take a few steps back rather than just hitting somebody. Other counselling has taught me how to get off of medication so I don't have to be a zombie all the time, I can actually live my life being clear-minded and not feeling all drained out all day from being on psych meds (Participant B).

Other youth did not discuss specific skills, but rather the benefits of the therapeutic process. They talked about the benefit of being able to "open up" and "deal with" the traumas of their past. Multiple participants commented on the fact that this allowed them to "move on" and stop using drugs. Yet, other participants had great difficulty putting into words how the services affected their lives, and instead made

overarching comments such as: "they [services] all played their part, and that's that" (Participant C).

Service Itself - Positively affected their general health and reduced risk

Many youth talked about how a particular service improved their general health by helping them to reduce risk associated with their drug use. For instance, some youth described that they stopped using a particular drug (e.g., crystal meth) after a treatment program and replaced it with a reportedly less harmful drug (e.g., marijuana). Others described the impact of a treatment program in less clear and tangible ways. For example, although one female reported that she continued to use after she left a treatment program, she still attributed positive outcomes to being in the program. She described that it "helped me never go as low as I went" (Participant D). She continued:

> Before I went to treatment...I wouldn't eat cause of crystal meth. I would take it to the point where I was fainting... When I went to treatment, we went to Playland, and we got to do really cool stuff and I met a bunch of junkies that were sober now. It was kind of cool so then when I got out of treatment, I knew I was going to use again but, I never, it was never the same. I made sure I ate. I made sure I did that... It changed me. Yeah, it was a good treatment program (Participant D).

This participant further described how the program affected her by saying "it gave me a different outlook...and that says a lot for me...when that happens, it shifts my whole thinking" (Participant D). This speaks to the importance of a harm reduction or risk management model.

Service Itself - Received basic resources or gained life skills

In addition to finding more traditional mental health and addictions services helpful, the majority of youth also found services that provided basic resources (e.g., shelter, food) or life skills (e.g., employment support) to be very beneficial. Regarding basic resources, several youth commented on the usefulness of youth- or woman-specific drop-in centres. They accessed a variety of resources through these venues from something as straightforward as the phone or computer, to receiving advice and

support on how to leave an abusive boyfriend. Youth also received parenting assistance, nutrition advice, clothes and food from drop-in centres.

Youth also reported receiving help with their education or employment from various support services. Many youth accessed vocational services where they learned how to build a resume or practice job interview skills. In addition, sometimes service providers set up youth with vocational skills training programs.

Many youth reported how helpful it was for services to incorporate life skills training in their programs. For instance, youth learned how to manage money, pay bills or cook. Some services set them up with finding a place to live, whether it was temporary (e.g., shelter, safehouse) or a longer term home (e.g., as part of their Youth Agreement with the Ministry of Children and Family Development, a legal agreement to support independence for youth 16- to 18-years-old when a parent is unwilling/unable to provide care). One female youth reported how important it was for a service to help her find more stable housing as an adult. She reported:

> ...getting into this low income housing was really good. About a year ago I broke up with my son's father and it was really hard and it just really helped when they phoned me back to move into low income housing with the cost and everything. So that was a great help... everything has changed about me, I mean I'm a lot happier, I'm more outgoing, I'm not as stressed out, things are good (Participant E).

In addition, some youth described how useful it was to learn hobbies within treatment programs. It seemed that learning hobbies provided youth the opportunity to develop skills or interests in leisure activities that they had never been exposed to. In some situations youth described that participating in leisure activities exposed them to alternative, healthier lifestyles.

In summary, when youth discussed services, not only did they mention the benefit of services that directly reduced their mental health symptoms or substance abuse, but they also talked about the importance of services that targeted other areas of their lives (e.g., housing, employment).

Service Provider – Relationships made a difference

Often youth described specific service providers who made a difference to them and influenced their wellbeing. For example, when one female participant was asked which services she found helpful, she responded: "…what I remember most is not the service, but it's one of the one-on-one workers who was really kind with me; I remember that more than the service" (Participant F). Youth did not report overarching statements about how all service providers were kind; rather, they identified a specific service provider, often by name, who they remembered and appreciated. They described these helpful service providers as "understanding", "real" or that they "took the time and really cared". Some youth directly described the impact that the service provider's kindness had had on them, by saying that it made them care about themselves more.

I remembered they'd always say that they were so impressed with me. And I really wasn't doing anything impressive other than having a positive attitude and using manners so I think just by being an amicable person, people treat you better. Or it makes you feel better about myself. Makes me want to, makes me care about myself a little bit more (Participant F).

In contrast, other participants had a different experience. For example, another identified that she found it helpful when a drug and alcohol counsellor was kind to her *despite* the fact that she herself was not polite to the counsellor. The relentless kindness the drug and alcohol counselor displayed left a lasting impression that someone cared about her no matter how she behaved.

> The drug and alcohol counselor wasn't really helpful at that time, but she's more so helpful now, knowing that even when I was like that with her and I treated her like garbage, I treated her just horrible, she still had contact with me…it just feels good to know that like even though I was just a like a shitty person at that time, that she just didn't judge me by that (Participant G).

For some youth, it was more than the kindness of the service provider that they remembered; rather, it was the relationship that they had with this service provider that gave them something important. These youth often attributed their recovery to this

particular service provider when asked what important events or people helped get them to where they are today.

One female youth described how her relationship with her social worker influenced her:

> She always told me that I can do better things than always doing dope, or there is better things out there for me and she, just never giving up on me. And that was my support, like that was her being I guess a social worker, always trying. She really helped me believe in myself a lot. I used to slit my wrists all the time and try to kill myself lots when I was a kid and doing dope, and she always told me that, that's no way to go and that there is always better things out there and that I could become so much…(Participant A).

Service Providers – Advocated for them in times of need

Some youth commented on the importance of service providers who advocated for them when they really needed support. These specific acts by service providers stood out to the youth as they believed they were the start of a cascade of events that led them to where they are today. The importance of individual service providers was often described in the context of previously feeling overlooked or turned away by others.

> I think what's more important than services, well and they're very important, but it's usually up to one person who does the right thing that can change your life like the doctor who admitted me to the psych ward. Some doctors might of sent me away or asked me to come back in a few weeks but she saw that I was in distress, that I could do better and she kept me there (Participant A).

Other youth had similar experiences in which specific service providers continued to provide treatment despite the fact that they had acted out or broken the rules. A female youth remembered a time that a particular service provider allowed her back into the program despite the fact that she had broken the rules and run away.

The manner in which the advocating occurred also really mattered to some youth. For example, a female participant had felt forced to attend treatment programs by many people in her life; however, she found it the most helpful when her counselor supported her to come to the conclusion independently:

Another counselor at my school helped me too...They got me into treatment and to [substance use treatment program] and they weren't really pushy, they just kind of listened to me. They weren't like 'hey if you do drugs you are going to die'. They kind of left it up to me, being like 'okay well, why do you think this happened?' And then I would be like, 'oh cause I did meth' and then I would figure it out for myself. So I think that I ended up wanting the help because nobody was pushing me to do anything (Participant H).

Another male participant described the important role that his social worker played in his life. When asked what helped him get to where he was today, he noted his social worker as the one who "helped me get out of the house...he helped my parents realize they have a problem because police were being called. And he, my social worker, was the one to call them" (Participant I). Prior to this, he had felt frustrated that others did not understand the extent of the difficulty of his living situation.

Service Providers – Preferred supports/mentors with similar experiences

Several youth talked about the positive aspects of having service providers who had had similar experiences. This was particularly true for youth using services for substance dependence. Listening to people who had been in their situation in the past and had recovered offered them hope for their own future. These service providers seemed to have a positive impact on youth whether it was a long-term mentorship or simply a one-time guest speaker talking about their recovery. Youth talked about how helpful it was to talk to someone who had not just "read it in a book".

Maybe if there were more people that actually had experience in the things they're trying to, I don't know. It's hard to talk to somebody when they have no clue what you're going through...Maybe get more people in that industry that have been through it or have seen people or had people close to them who have gone through it so they can actually relate to them somehow? (Participant B).

Youth also talked about the importance of Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) because these groups provided a social network of people who understood their struggles. In addition, multiple participants found meaning from their own past by being able to support other individuals trying to stay sober as part of AA or NA.

Guys who were a couple of years older than me were in the same position I was, being like 'hey man it gets better, let's go for coffee. You know I'll sit and chat with ya till like the wee hours of the night cause you're going crazy' and I got an opportunity to fill almost the exact same role for people who I see are almost exactly like me. Like two or three years later. So that helped a lot (Participant J).

Negative experiences with services

The themes comprising youth's negative experiences with services were derived from both spontaneous comments throughout the interviews as well as responses to the direct question: *which services were unhelpful and why?* Similar to the organization of the above section on youths' positive experiences with services, the themes were divided in relation to the "service itself" or the "service provider". Two themes did not directly fit into these overarching categories and thus are titled "other" (see Table 19).

Table 3.2.   **Youths' negative experiences with mental health and support services**

Service Itself	Treatment received did not help
	Structure too strict
	Did not like side effects of medication
Service Provider	Too critical or judgmental
Other	Harmful outcomes as a result of service involvement
	Forced to attend service resulted in lack of engagement

Service Itself - Treatment received did not help

Approximately half of the participants in this study reported that at least one service they received throughout their life was unhelpful. More high-comorbidity youth than low-comorbidity youth reported that at least one service was unhelpful. Youth often pinpointed specific services that they believed had little impact on their mental health symptoms. For example, some youth talked about the ineffectiveness of taking medication to treat depression, anxiety or ADHD, whereas another youth reported that

he found anger management unhelpful because he still "snaps out" and reacts with violence when people upset him.

One male participant reported the ineffectiveness of the services he received. He reported that "none of them have really been all that helpful, really to be honest with you…they were just kind of there" (Participant K). Throughout the interview, this youth talked about the difficulty he had when his mother passed away. He described that he had never found a way to cope with this traumatic event. He described why he felt that the services were ineffective:

> 'cause they never solved my problems. I can't even elaborate on that… the shelter only help for so long and then they tell you to go to somewhere else…I would rather not relocate to Vancouver or something farther away from my family …the Violence Prevention Program was mandatory and I didn't really gain anything from it besides learning how to deal with angry situations and like people who try and provoke you and stuff like that…I guess it was helpful in a way, but maybe if they had given me other course options too after that… like 'here is some other things you can continue'… that would have helped too… (Participant K).

Consistent with his report, it seemed that services had not lessened his mental health symptoms, as he had multiple clinically elevated symptoms at the time of the interview.

Service Itself - Structure too strict

Some youth described their dissatisfaction with how strict or rigid some services were. The strictness of the service made it feel inaccessible to youth and eventually led to them disengaging from the program. For example, one participant found that the social worker made everything "too complicated" when trying to re-gain custody of her son. She felt that it was not possible to manage the social worker's requirements, which eventually made her stop attending appointments. Notably, this youth had struggled with many traumatic events in her life including childhood sexual abuse and intimate-partner violence.

Some participants also discussed negative experiences with residential programs or group homes. They talked about how the structure of the program could be so

overwhelming that they felt that they could not successfully participate in it. Some youth would have preferred that they were slowly integrated into the program. One female participant discussed her particular dissatisfaction with the structure of a group home:

> It's invasive, we have these locks on our doors and there's staff members there and we're not allowed to use the phone from this time to that time, and we can't watch TV from this time, it's not a home setting at all, it makes you uncomfortable, it's makes you want to become friends with these people [referring to other youth in the group home] and makes you want to go out. Group homes are horrible (Participant G).

It did not seem that services were focused on engaging youth at a pace that fit their needs; rather, the youth were supposed to be able to fit in to the structure of an existing program. This attempt did not seem to work for some adolescents, and instead, led them to removing themselves from the services.

Service Itself - Did not like side effects of medication

In addition to some youth finding medication ineffective, some youth experienced negative side effects that caused them to stop taking the medication. In particular, they described feeling as though they were a "zombie" or "drugged out". Some youth attributed this to the fact that they were prescribed very high medication doses for their behaviour problems. Others described how they did not like the way that medication made them feel.

> I was way too hyper, was the problem, I had way too much energy... I did about two weeks of it [medication] and I didn't like the stuff cause I just be sitting there staring at the wall all day, so I stopped taking it, I just figured I was a healthy kid with lots of energy (Participant L).

Service Provider – Too judgemental or critical

Many youth described that they had felt judged or criticized by service providers. Some noted that they felt particularly judged because of their substance use — to the extent that some disengaged from services because of such judgments.

> They tried to get me to do this one counselor program when I was pregnant with my son and then she told me that my kid was going to

come out with three heads...So I didn't really like her... so I stopped going and that kind of turned me off cause I was only 16, I just didn't like getting into the care of the [Ministry] cause I was using their houses to sleep and whatever but I never did any programs (Participant A).

Other youth recalled times when they felt judged by service providers because of their behaviour problems. Some said they wished that service providers had focused more on their strengths or efforts to engage in pro-social behaviour, instead of focusing solely on their challenges.

They [service providers] kept saying 'that's wrong, that's wrong, that's wrong'. Everything that I did seemed to be wrong. Kind of annoyed me, I guess. Instead of explaining it to me. I think that's the falling out that I had with that and I stopped going to it (Participant M).

Other – Being forced to attend services resulted in lack of engagement

Several youth talked about their negative experiences when they felt forced by others to attend a service or take medication. The feeling of being forced into a service or treatment program made youth want to deliberately disengage from the service:

I don't really know if coming to the [name of treatment program], or like going to jail or having a youth worker really helped me at all, cause I didn't really want help. I was forced to get it (Participant H).

I can't really even remember, I was just like 'I don't want to take the pills… this is pointless'. My grandma was just like, 'go give it to him, give it to him'. And I am just like, 'no, I have a say'(Participant K).

Other – Harmful outcomes as a result of the service

Several youth attributed harmful outcomes as a result of their service involvement. Some youth reported particularly negative consequences associated with meeting youth who introduced them to antisocial behaviour or substances.

When I went to jail I just met really bad people and then I just learned how to do everything that I wanted to do so much better. If you go there for shoplifting then you're gonna meet someone who is doing credit card fraud. And then you're going to end up doing that. It just

didn't really help because I didn't want help. I wanted to meet other people. I just wanted to have friends I guess (Participant H).

Youth also talked about how important it was to meet friends, as they had had difficulty making friends throughout their lives. Therefore, by the time they entered a treatment program some of them felt quite desperate to make friends. The priority they put on making friends seemed to make them vulnerable to creating unhealthy, influential friendships quickly.

> I wanted to be part of so badly that I like, did like anything to get a friend. And that friend ended up introducing me to meth (Participant H).

> I just wanted to be somebody's friend and so being friends with her totally screwed up my life. Totally screwed up my life, like we went and she took me out to meet this person and that person and all these people and it's just that there's so many screwed up kids that need help, that are in places like that and then you put someone like me, who's just out there for attention and I don't have any serious issues, you know…kids feed off of their emotions…it's too much...And if she would have gotten the help that she needed to get, I wouldn't have met her and probably 95% of my life wouldn't have happened like this (Participant G).

Few youth reported harmful outcomes due to service providers behaving unethically. One participant had been a patient of a psychiatrist who was later charged with being sexually inappropriate with his patients. Although the participant did not directly experience this unethical behaviour, it still greatly affected her impression of future service providers. Another participant reported witnessing a staff member at a residential program inappropriately touching another youth.

> I found out he got fired and charged I think for molesting girls...ya, it's like you think you go to the good services around here and it turns out being a little bit more messed up than where you're from. Cause I never saw that before. That's supposed to be a service to help kids and if anything that's going to make problems worse (Participant L).

Barriers to receiving mental health services

After youth described their experiences with services, they were asked, *looking back over your entire life, was there ever a time that you wanted/needed support for a mental health concern but were not able to get what you needed? If so, what got in the way of you accessing services?* The themes derived from youth's answers to this question as well as their comments that spontaneously arose throughout the interview. To organize the themes, Table 20 divides the barriers in relation to either "structural", "familial" or "individual", although there is some overlap between these levels of barriers. For the purpose of this study, a structural barrier is defined as a systemic or service delivery limitation that either slowed down or prevented access to services. A familial level barrier is defined as either a caregiver or romantic partner getting in the way of the youth accessing services. An individual barrier is defined as the youth's attitudes or beliefs that either slowed down or prevented access to a service. The development of the attitudes and beliefs were interpreted based on participants' complex life histories.

Table 3.3.   The multiple barriers to receiving mental health services

Structural	Services were not available or accessible
	Service providers did not believe that behaviour disorders warranted treatment
Familial	Caregiver or partner impacted their ability to access services
Individual	Youth did not recognize their mental health needs
	Their mental health was not a priority
	Wanted to handle it independently
	Negative expectation of therapeutic relationship
	Worried about the negative consequences of receiving services

Structural - Services were not available or accessible

An important area discussed by youth involved structural flaws in the mental health system that prevented them from getting treatment. In some instances, appropriate services were simply not available to meet their particular needs. For instance, one participant was informed by a service provider that she would require dialectical behaviour therapy (DBT); however, she was told that she would have to pay for treatment at a private clinic due to few publically funded services offering DBT.

Several youth reported challenging experiences accessing services for their concurrent mental health and substance use disorders. For example, one youth had to move communities to access a concurrent disorders clinic, as there was no appropriate clinic located in her region. Those who accessed substance use treatment services often found the programs limited in their ability to manage mental health concerns, and vice versa:

> They almost kicked me out of [substance use treatment program], because I was getting really bad panic attacks and I couldn't sleep at night. And they were like 'well come back when you figure out your mental health'. And the mental health people were like 'oh call us when you're done your treatment there'. And I was like really this close to being kicked out of there (Participant F).

Similarly, other participants found mental health services requiring abstinence unrealistic and therefore inaccessible. For example, one youth was told that she needed to quit drinking in order to receive treatment for anxiety problems:

> They wanted to medicate me cause they were like 'yeah you have anxiety but you can't drink on the medication' so I just I stopped going because I just felt like they manipulated me into talking to them. And then they were trying to get me to quit drinking. I just felt like they were trying to ruin my fun…I didn't believe that they had my best interest because I was just like 'k you guys are trying to get me to stop drinking and that makes me feel good. I don't really like understand why you like want me to stop drinking' (Participant H).

Sometimes participants reported finding services inaccessible due to challenging paperwork requirements or simply because they were unable to locate a treatment

program. One female participant described her difficulty navigating the mental health system:

> Finding the information and getting involved with any service is pretty hard. It's either hard or it's a complicated scenario or you have to use the internet or whatever. You really have to dig into websites to find contacts of people you can talk to (Participant B).

Several youth found it more difficult to access services as adults than as youth. Some reported an interest or need to access services for their mental health, but did not know where to go. Many youth reported feeling "lost" in terms of where to go for help within the adult system.

Structural - Service providers did not believe behaviour disorders warranted treatment

Some youth experienced times when service providers also offered little in the way of help. In particular, participants recalled being told that they did not have a mental disorder, despite their engagement in serious antisocial behaviour or substance use. One female youth recalled her assessment results:

> They analyzed for like a week or two and they said there was nothing wrong with me except for that I had a defiance disorder and that's it…It's just because of my offences like how brutal they were it was more like I stole cars and I got into fights and I was involved in drug dealing. Because of the nature of my crimes I was court ordered to go to this place, so I think I was only there for like a week maybe 2 weeks and they said that nothing was wrong with me, like I don't have a like ADD or OCD or anything that they assess, that I just have a defiance disorder or whatever (Participant G).

There were also times when youth received negative reactions when they did ask for help for their behaviour problems. One young person recalled asking for help from his school counselor and was told to "stop doing what you're doing", referring to his involvement with crime.

> After I asked, it was kind of like 'well nobody can help, nobody's here for me'. I mean I knew my parents were there for me but I mean I don't really want to talk to my parents about my problems, I'd rather get professional help, but I kind of felt like nobody was there, when I needed help, so I kind of stopped asking after that (Participant M).

Similarly, participants also recalled their parents offering little support for their behavioural problems. Youth recalled their parents telling them to "stop going to jail" or "you've got to straighten your act out". One male youth recalled, "I think [my father] just wanted me to be different than I was and stop causing problems" (Participant J). However, when asked if their parents' concern was ever followed up with a referral to a service, youth unanimously replied "no". Thus although parents expressed concern about their children acting out, little concrete support was suggested or provided.

Familial - Caregiver or romantic partner impacted their ability to receive services

Nearly all of the high-comorbidity youth (and some of the low-comorbidity youth) reported that other people's negative attitudes and beliefs about services affected their ability to seek care. In particular, some female participants reported being in "controlling" relationships with males who did not let them leave the house. For example, one female participant who was living in an abusive relationship wanted to attend substance use treatment but was unable to because her boyfriend did not want her to leave him.

In addition, several participants described that their parents' opinions about mental health services directly affected their ability to receive support at a young age. Some participants recalled that their parents had not gotten along with their family therapist and therefore stopped attending sessions. Others described that their parents had not consistently taken them to mental health appointments, or described that their parents were preoccupied with their own mental health or substance use issues which resulted in them not connecting their children with services.

> Nothing really ever came of these psychiatrists'… appointments, because they were never really followed through because my adopted mom had drug problems. So it was her commitment to bringing us there and back would be dodgy (Participant F).

Individual - Youth did not recognize their mental health needs

Nearly all youth described times in their lives where they had not identified with having a mental health need despite the fact that others were concerned. Some of these youth described gaining perspective later on in their life; they realized that they

had struggled with their mental health during adolescence and wished they had had more support.

> How does a 13- or 14-year-old kid know how to ask for help, you know? It is a weird thing, first of all you don't know something is wrong cause you are so young and then you like you feel wrong in asking. So how do you even know that there is such a thing…I never knew there was a one-to-one worker (Participant N).

Some youth explained that they had trouble recognizing their mental health needs because they thought that their behaviour was "normal" at the time. For instance, some youth described that their references for what was typical was skewed because of their peer group. One participant noted, "I couldn't see what was wrong with me. I just thought 'everybody feels like this'... I just surrounded myself with people that were like that too, so I would not feel so messed up" (Participant H). Other youth described their frame of reference as their family. For instance, one participant stated that her immediate and extended family were involved in criminal behaviour: "I definitely had bad examples, so it didn't feel like I was troubled because everybody around me was doing the same thing" (Participant O).

A minority of youth continued to believe that they had never had a mental health concern. When asked if they have ever felt concerned about their ability to cope or their mental health, many youth said, "I'm not crazy" or "no, I wasn't a depressed kid". Youth often minimized their difficulties by saying that they were just being "angry" or "rebellious" when referring to their involvement in serious antisocial behaviour. Not only did these youth minimize their acting out behaviour, they also minimized other concerning behaviours such as calling self-harm, "just being dramatic."

> In the beginning of my teenage years, in a dramatic manner I slit my wrists, but I wasn't trying to kill myself, I just was one of those dramatic teenagers that needed a little bit more attention and that's right before I came here [treatment program]. Once that happened my Mom got in touch with this place, the pediatrician told her 'send me here', and when I came here, everything was fine. I still got into a lot of trouble after but it wasn't like I really had a problem, it was more I was just I didn't like following any rules, right? (Participant O).

Individual - Their mental health was not a priority

For those that did recognize their mental health needs, many barriers stood between them and deciding to seek help through mental health services. For example, many youth reported that managing or reducing their mental health symptoms was not a priority as they were more focused on making friends or trying to keep a job. Other youth reported that seeking services or making it to an appointment was not realistic, as coping with their life circumstances was challenging enough.

Meanwhile, some youth said that they simply "didn't care" enough to seek services because their symptoms were so impairing. For example, one youth reported that her suicidal ideation caused her to feel unmotivated to take part in services as little priority was placed on recovery. Similarly, some youth reported that they were too busy engaging in substance use to take care of themselves.

Individual - Wanted to handle it independently

Some youth attributed their decision to not seek services to a desire to be "independent". They described people who sought help as "weak", "attention grabbing" or playing the role of the "victim". Some also reported that stigma related to mental disorders affected their motivation to seek services and described feeling "embarrassed".

> It's mostly an ego thing to admit that what I am doing is wrong and I don't have all the answers and I need help. It's almost an insurmountable fear to be like 'I don't know'. Even your dad can be like 'you need help' you're like 'no I got it under control'. But really inside you're like 'I really just have no idea what I am doing and I need some help'. But you'll never say that (Participant J).

Youth not only described negative views about help-seeking, but also emphasized the importance of autonomously taking care of themselves. Some youth attributed this emphasis to the fact that they did not have strong support from their parents when they were young. One participant whose mother passed away from drug use when he was an adolescent noted that his "pride" was what helped him get through difficult times because:

No one was really there to help me but myself… so I kind of just built character. I don't like to ask people for help, it's not me...I would just rather get through it on my own, even if I don't manage, I am still going to do it myself (Participant K).

A female participant similarly reported valuing her independence due to a lack of support from her caregivers:

Because I believed that I was independent because my mom had kicked me out…I am not too big on taking people's help. I believe that if I can't do it by myself, then I shouldn't do it at all. And there are a lot of things as a person that I believe I can do, so I don't think that I should need help. I like to achieve my own goals, as opposed to getting people to help me through them (Participant A).

It seemed that she valued being independent, not only out of necessity, but also because she gained confidence through the accomplishment of autonomously achieving her goals. Similarly, other youth reported feeling proud of their ability to quit using drugs without the support of services; it was a goal that they had achieved independently and using services would not have felt as rewarding.

Individual - Negative expectation of therapeutic relationship

Many youth described having a negative expectation of what a therapeutic relationship would be like. Some youth described worrying that the service providers would judge them or would tell them what was "wrong" with them. Some youth also felt that they did not want to make the effort to develop a relationship with a therapist because they thought that they would be let down or not supported.

I never really wanted to be in counseling...I just didn't really want them trying to analyze me, figure me out, this and that. It's just more of a self-privacy thing, I just didn't want other people being involved in my life that much (Participant L).

That's the reason I never express anything to anybody, just because I don't want to be shut down, don't want to be let down by people. So I just never express anything so nobody like really knows anything about me (Participant M).

Other youth worried about opening up to a therapist then having them leave shortly after. As a female participant explained, "I'm not big on opening up to counsellors, purely just because I get to know them and they take off or I can't see them again, just as I start opening up" (Participant B). Building relationships with care providers was therefore highly problematic for this participant.

Individual - Worried about negative consequences of receiving services

In addition to the negative expectations, some youth outlined fears of specific consequences that they believed would result from asking for help. Some youth reported specific concerns related to justice settings. For instance, one participant worried that if she voiced her suicidal ideation she would be seen as "crazy" and sent to segregation. Another said that he could never honestly express his needs to his probation officer for fear of negative consequences:

> I guess you can say stuff to your probation officer if you want help, but sometimes you don't really want to because he's your probation officer, the least you tell them the better. 'Cause you think, if you tell your probation officer there's problems, unless you feel like really good about your probation officer or whatever then you can but sometimes it just feels like they're more there to hold you down or something (Participant P).

Other youth reported concerns related to being forced to live in a foster home if they asked for mental health support. Some who reported this fear had run away from foster homes in the past and were disconnected with Ministry services as a result. They felt that if they tried to reach out for mental health support from the Ministry they would also have to return to foster care.

Current life circumstances

For some youth, the "turning point" did not happen until later in adolescence or early adulthood. "Turning point" refers to events that changed the direction of their lives towards recovery. Three different types of turning points were described: 1) becoming pregnant and having a child; 2) feeling motivated to recover because of witnessing friends pass away; or 3) receiving mental health treatment.

Some attributed the birth of their children as a motivating factor to stop engaging in substance use or antisocial behaviour. Seven (four females, three males) out of the 19 participants had at least one child. Some of the female youth described stopping their drug use "cold turkey" as soon as they found out they were pregnant, while others did not have as smooth a process. For instance, one female continued to use heroin while pregnant with her first child but was motivated to quit for her second child. One out of the three fathers in the study was currently living with his child.

Other youth described that the devastation that crime and substance use had caused their friends had greatly affected them. For example, one participant's friend committed suicide while another's friend was killed as a result of gang involvement. Witnessing these events motivated these youth to want a better life for themselves.

Yet other youth described their turning point occurring when they were connected with a specific mental health service. For instance, one youth went to a substance use treatment program as an adolescent and was connected to a community within NA. He went on to become an addictions peer support counsellor. Two participants were diagnosed with schizophrenia at 18- and 20-years of age and described receiving proper treatment since then. Two female participants were connected to Concurrent Disorders clinics as young adults. They both described being diagnosed with psychiatric disorders (e.g., anxiety, depression, PTSD) and were actively engaged in their treatment.

Although many participants reported a decrease in mental health symptoms as they grew older, quality of life was nevertheless quite compromised for most. All but one described having significant financial problems. Many attributed these financial difficulties to dropping out of high school and therefore finding it difficult to gain employment. Many had made efforts to return to school and receive their General Education Development, B.C. Secondary School Equivalency Certificate. Several had used vocational services to garner support in finding a job or setting them up with specific training courses. Beyond the difficulties associated with finances and educational attainment, six out of the 19 participants had been incarcerated as adults. In addition, nine out of the 19 youth were still engaging in substance use, although to a lesser extent than they had previously. Typically they described smoking marijuana

frequently and using other drugs for "party" purposes (e.g., cocaine). Others continue to drink alcohol, but do not describe that it was a problem in their life.

Chapter 4.

DISCUSSION

4.1. Overview

The purpose of this study was to understand the longitudinal mental health needs of youth with serious behaviour problems and to explore their experiences with mental health services. Mental health profiles were measured in adolescence and again five years later in young adulthood (Study One). To understand service use and barriers to care, a subsample of youth were selected to participate in an in-depth qualitative study (Study Two). This study was a part of a larger longitudinal project (Gender and Aggression Project), examining gender differences among youth with serious behaviour problems. Results from this study provide insight into a population of youth which service providers often find "hard to reach", yet youth with behaviour problems often have complex mental health needs.

4.2. Mental Health Profiles in Adolescence

Prevalence rates of mental disorders among youth in the current study were substantially higher than adolescents in the general population (Waddell et al., 2014). Similar to previous research on young offenders (Abram et al., 2003; Gretton & Clift, 2011; Wasserman et al., 2010) and community studies of those with CD (Moffitt et al., 2001), comorbidity prevalence rates were substantial, as approximately three quarters of the youth with CD met criteria for two or more additional disorders.

4.2.1. Externalizing Disorders

As predicted, prevalence rates of externalizing disorders were similar across genders; nearly three quarters of youth met diagnostic criteria for lifetime CD or substance dependence, and approximately two thirds met criteria for lifetime ADHD. Given that youth were selected to participate in the study based on having serious behaviour problems, it is not surprising that equal prevalence rates of current and lifetime CD were found among males and females. However, previous research on gender differences in ADHD and substance dependence were mixed. The current study supports research findings showing that females and males with CD have equal rates of externalizing disorders, despite the fact that ADHD and substance dependence are generally more prevalent among males in the general population (Merikangas et al., 2010).

Consistent with previous research (Abram et al., 2003), substance dependence was the most highly co-morbid additional disorder among youth with CD. Rates of substance dependence in the current study were higher than in youth juvenile justice settings in the US (Abram et al., 2003) but more similar to research in Canadian youth juvenile justice settings (Gretton & Cliff, 2011). The fact that nearly three quarters of youth in this population met criteria for a current or lifetime DSM-IV diagnosis of substance dependence is very concerning as substance use has a significant impact on the developing brain (Lubman et al., 2008). In addition, early substance use is related to continued dependence problems in adulthood (Hingson, Heeren, & Winter, 2006), as well higher risk of involvement in crime (McReynolds et al., 2010).

Rates of lifetime and current ADHD (67% versus 43% respectively) in this study were substantially higher than U.S. and Canadian juvenile justice estimates. Youth in the Canadian system may have higher rates of disorders as rates of incarceration have historically been higher in the US than Canada (Hockenberry, 2013; Munch, 2012), suggesting that youth in the Canadian system may have committed more serious offenses and thus may be more severely impaired.

4.2.2. Internalizing Disorders

Consistent with previous research in juvenile justice settings in Canada and the US (Abram et al., 2003; Fazel et al., 2008; Gretton & Clift, 2011; Wasserman et al., 2010), females had significantly higher prevalence rates of both lifetime and current internalizing disorders compared to males. Approximately one third of the adolescents met criteria for lifetime PTSD, with females significantly more likely than males (44% versus 16%, respectively). Similarly, significantly more females than males met criteria for both lifetime (49% versus 25%, respectively) and current major depressive episodes (32% versus 17%, respectively). The higher rates of poly-victimization experiences (i.e., multiple traumas) reported by females compared to males in the justice system may explain the gender differences in rates of internalizing disorders (Ford et al., 2013; Moore, Gaskin, & Ingid, 2013). Research has suggested that it is repeated traumas, as opposed to the specific type of trauma that is linked to the development of PTSD in adolescence (Nooner et al., 2012).

Taken together, females with CD demonstrated more complex mental health profiles in adolescence. These results suggest that youth with CD have a range of needs that require comprehensive assessment and intervention. CD can be seen as an indicator for complex mental health needs, thus requiring service providers to look beyond the behaviour and develop individualized care plans.

4.3. Mental Health Profiles in Young Adulthood

Overall rates of comorbidity continued to be high, as 77% of youth endorsing clinically-elevated antisocial behaviour also had two or more clinically-elevated mental health problems. Consistent with results at Wave 1, females with clinically-elevated antisocial behaviour had significantly higher rates of comorbidity than males.

4.3.1. Externalizing Problems

Consistent with previous research (Odgers et al., 2008) overall rates of antisocial behaviour decreased over time from adolescence to young adulthood, with 76% of youth

meeting criteria for lifetime CD at Wave 1 and 49% of youth endorsing clinically-elevated antisocial personality problems at Wave 3. Rates of substance dependence demonstrated a similar decrease from Wave 1 to 3 (74% to 51%). The fact that rates of dependence decreased over time, with few individuals having new onset of substance dependence in young adulthood is contrary to epidemiological research, which indicates that onset increases with age during the transition from adolescence to young adulthood (Lansford et al., 2008; Merikangas & McClair, 2012). This highlights the very high-risk nature of the population in the current study, as substance dependence in mid-adolescence is fairly uncommon.

Although overall prevalence rates of externalizing problems (antisocial behaviour, substance dependence, ADHD) decreased over time, at the individual level, externalizing problems were the most stable; 61% of those with substance dependence at Wave 1 continued to have substance dependence at Wave 3; 56% of those with CD continued to have antisocial personality problems at Wave 3, and 54% of those with ADHD at Wave 1 continued to have ADHD problems at Wave 3. Although these analyses are only rough estimates, the results mirror patterns found in epidemiological studies which demonstrate the persistence of antisocial behaviour and substance use disorders over time (Copeland et al., 2009).

4.3.2. Internalizing Problems

Contrary to Wave 1 findings, no gender differences were found between prevalence rates of clinically-elevated mental health symptoms at Wave 3. This however, could be related to the smaller sample size at Wave 3 potentially impacting the ability to detect statistically significant differences.

At the group level, overall prevalence rates of internalizing symptoms remained consistent from Wave 1 to 3; PTSD problems altered only slightly from 31% to 29%, and depressive problems remained at 36%. However, results at the individual level showed more fluctuation, with some individuals having new onset of depressive and PTSD problems (Absent at Wave 1/Present at Wave 3) and some individuals having remitted depressive and PTSD problems (Present at Wave 1/Absent at Wave 3). One fifth (21%)

of the youth at Wave 3 had a new onset of either depressive symptoms or PTSD symptoms, compared to only 13% of youth with new onset antisocial behaviour, 10% with new onset ADHD problems, and 6% new onset substance dependence. The presence of new onset of depression is consistent with research indicating that externalizing disorders in childhood or adolescence increases the risk for developing depression in young adulthood (Kim-Cohen et al., 2003; Reef et al., 2009), although the current analyses did not test this prediction. The new onset of PTSD could be related to the repeated traumas that youth with externalizing disorders continue to be exposed to over time (Afifi, McMillan, Asmundson, Pietrzak, & Sareen, 2011).

In summary, research on the mental health needs in young adulthood highlight the fact that mental disorders are not a temporary problem. Instead, many mental health problems persisted and new onset of problems were detected. There has been a growing concern in Canada that youth transitioning from child and youth services to adult services are not being adequately served. This is in light of the fact that this time period is often characterized by significant developmental changes, as well as the onset of other serious mental disorders (McGorry, Purcell, Goldstone, & Amminger, 2011; Pottick et al., 2008). Results from this study confirm that the mental health needs of those with serious behaviour problems continues into young adulthood, reiterating the fact that there is still a high need for service provision that meets their complex needs.

4.4. Histories and Current Life Circumstances

Results from the qualitative interview (Study Two) offer additional insight into the needs of these youth beyond their diagnostic profiles. In particular, the life histories described in the qualitative study highlight the multiple risk factors that participants were exposed to in childhood. Most participants reported histories of extreme child maltreatment and witnessed multiple traumatic events. In addition, the rejection and social isolation that participants experienced regarding their peers left them vulnerable to making friendships or romantic relationships too quickly in early adolescence. These peer relationships often ended up being quite harmful and led to continued victimization and traumatizing experiences.

The multiple risk factors youth experienced in childhood collectively led to a very challenging and chaotic adolescence. Consistent with previous research on the outcomes of adolescents with severe behaviour problems (Fergusson et al., 2005; McCrone et al., 2005), many youth in the current study reported having low educational achievement and poor vocational adjustment, resulting in being financially compromised in young adulthood. In addition, seven of the 19 youth had at least one child, which is consistent with research demonstrating the high risk of early parenthood for those with CD (Fergusson, Boden, & Horwood, 2009).

Knowledge of the risk factors and needs of youth with serious behaviour problems provides insight into the areas that interventions should target. For instance, participants' life stories highlight the need for a greater emphasis on protecting children and families from violence and neglect in BC. Programs should support high-risk, young families as a way of preventing child maltreatment (Olds, 2007). Children and youth who have experienced child maltreatment must be connected with supportive services that focus on mitigating negative outcomes and promoting healthy development. Treatments that focus on supporting healthy relationships with caregivers and minimizing conflict are essential to preventing youth from disengaging from their families (Moretti & Obsuth, 2009). However, findings from the current study demonstrated that limited services were available to participants and their families during childhood and instead, that the majority of services were not offered until adolescence. Results from the current study focused on youths' experiences during adolescence and early adulthood. Information on their barriers to care and interactions with the service system provide insight into ways to improve engagement and accessible services that match their multiple needs.

4.5. Service Use

4.5.1. Study One

Results of the Wave 3 questionnaire on service use provide information on better helping transition-aged youth in Canada, as youth were on average approximately 20-years-old at the time of participation. Research in the US and Australia has highlighted the decline in service use during this time despite the growing need for support (Pottick

et al., 2008; Reavley, Cvetkovski, Jorm, & Lumban, 2010). Results of the current study indicated that among those with a clinically-elevated mental health problem at Wave 3, approximately half (53%) had accessed a service for their mental health in the previous six months. When looking at the individual breakdown of type of service accessed, therapy (25%) and self-help groups such as AA or NA (20%) were the most common types of services accessed, with no gender differences. In addition, nearly one third of youth were on medication to treat their psychiatric conditions. These rates of service use are similar to those found in transition-aged youth (16-24 years old) with mental disorders in Australia, where one in four youth had accessed professional services the past year (Reavley et al., 2010).

Results also indicated that youth with clinically-elevated depressive or ADHD problems were significantly more likely to access a service for their mental health needs in the previous six months compared to youth with other clinically-elevated mental health problems (such as antisocial behaviour, PTSD, or substance dependence). Those with depressive problems were more likely to access therapy or acute mental health services. Results are consistent with other research studies indicating that among transition-aged youth who access services, depression is the most common mental disorder (Pottick, Warner, Vander Stoep, & Knight, 2014).

Consistent with predictions, results highlight the underuse of services for those with antisocial behavior problems and substance dependence. Previous research demonstrates that youth with SUDs are the most underserved compared to those with other psychiatric disorders (Paglia-Boak, Adlaf, & Mann, 2011; Wu & Ringwalt, 2006). Instead, similar to other US research (Garland et al., 2003), youth with SUDs were more likely to access self-help groups compared to those with other psychiatric disorders. Results from the current study suggest that youth with substance dependence prefer to access self-help groups such as AA or NA, perhaps because other therapeutic services are not as accessible.

4.5.2. Study Two

The qualitative study provided more in-depth exploration of youths' experience with services throughout their lives. Most youth described using multiple services as adolescents from varying levels of care including outpatient mental health, residential treatment centres and inpatient mental health. However, service use was typically disjointed, with large gaps in care. Despite this, most youth reported at least one positive experience with services and the individuals who provided the services.

Positive experiences with services

Consistent with other qualitative studies (Naylor, Lincoln, & Goddard, 2008), some youth with serious behaviour problems were able to describe specific tools that they learned, and tangibly described how a service helped decrease their mental health symptoms. For example, one female participant described benefiting from a harm reduction approach within a substance use treatment program, where she learned self-care strategies.

In addition to specialized mental health and addiction services, nearly all youth accessed support services such as vocational assistance, shelters, and drop-in centres for food and clothing. This highlights youths' multiple needs beyond traditional mental health symptoms. Support services also offer a potential access point or gateway into mental health services. This could be made possible if support services had either referral information readily available, or provided a "one-stop-shop" for youth by having mental health service providers in vocational settings, or shelters. The Headspace program in Australia provides an example of a setting that offers a comprehensive set of services for youth in single settings (Rickwood, Van Dyke, & Telford, 2013).

The fact that youth often identified individual service providers as having a positive impact is consistent with research indicating that supportive adults in the community can act as protective factors and foster resiliency (Zolkoski & Bullock, 2012). Consistent with other research on youths' preferences for qualities in service providers (Brown, Holloway, Akakpo, & Aalsama, 2014), participants in the current study described helpful service providers as "understanding", "real" or that they "took the time and really cared". Research conducted by Brown et al. emphasizes the importance of being

empathic, flexible, and patient when building trusting therapeutic alliances with youth previously detained in juvenile justice facilities in the US. Youth in the current study reported that the relationship with a service provider affected the way they viewed themselves, suggesting that they had "internalized" the relationship with the service provider and revised their insecure "model of self" (Bowlby, 1988). Without a trusting, therapeutic alliance, it is difficult for youth to benefit from therapy or listen to different points of views (Hawley & Garland, 2008). Indeed, youth often preferred having a service provider with similar life histories. Youth reported that listening to people who had been in their situation in the past and had recovered offered them hope for their own future. On the other hand, perhaps youth were indicating that they appreciated service providers who had the ability to show empathy and see their point of view (Brown et al., 2014).

Negative experiences with services

Approximately half of the participants in this study reported that at least one service they received throughout their life was unhelpful. More high-comorbidity youth than low-comorbidity youth reported that services were unhelpful, suggesting that youth with high comorbidity have not found treatments that appropriately met their needs. As one high-comorbidity youth described, none of the services had "solved [his] problems". This participant reported feeling that services were quite brief and insufficient, and instead he would have preferred longer service involvement or referral suggestions. Canadian researchers have noted the need for continuity and coordination across service systems as a method of improving resilience among youth (Sanders, Munford, Liebenberg, & Ungar, 2014).

Many youth reported finding that services during adolescence were too strict and punitive. Services did not seem to focus on engaging youth at a pace that met their needs; rather, youth were supposed to be able to fit into the structure of an existing program. This attempt did not seem to work for some adolescents, and instead, led them to removing themselves from the services. It is important to slowly integrate youth into programs and not overwhelm them. Programs that focused on managing behaviour seem to be missing the fact that youth who have serious behaviour problems often have multiple mental disorders as well as complex life histories that need to be taken into

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account. The youth in the current study reported preferring that their service provider focused on their strengths and attempts at engaging in prosocial behaviour. In addition, youth reported preferring to be involved in the decision-making process for their own care as opposed to being "pushed" by adults. Although adolescence is a time for developing independence, youth still require guidance from adult relationships (Siegel, 2014), therefore services should be able to foster youths' developing autonomy while at the same time provide support. Other research has found that youth with behaviour problems prefer programs that are flexible and include outreach components (Naylor et al., 2008).

In addition to some programs over-focusing on managing behaviour, some youth reported feeling judged or criticised for their involvement in antisocial behaviour or substance use. The consequences of youth feeling criticized can be substantial, as some youth reported completely disengaging from services as a result. For example, one female participant was told that her child would have "three heads" if she continued to use substances, and subsequently stopped receiving prenatal care. Therefore, although this service provider had good intentions – to inform the youth about the negative effects of substance use on her developing baby – the manner in which the message was given was not compassionate. This particular female had multiple experiences of sexual abuse and trauma, and had been taking substances since early adolescence. These results highlight the importance of engaging pregnant youth in a non-judgemental and empathic manner, as a way to improve appointment attendance and ultimately improve health outcomes for themselves and their child.

Finally, several youth reported feeling that programs such as residential settings, group homes, and juvenile justice facilities made their problems worse rather than better. Indeed, research indicates the ineffectiveness of incarceration (Cook & Roesch, 2012) and group work for adolescents with CD (Rhule, 2005). This highlights the need for preventative programs as well as interventions that take place in the community whenever possible (Waddell et al., 2014).

4.6. Barriers to Care

4.6.1. Study One

This study demonstrated that almost half of the youth (43%) with a clinically-elevated mental health problem in young adulthood (Wave 3) experienced a barrier to receiving services during the previous six months. The most common barriers were 'could not afford treatment' (16%), 'did not want services' (15%), or were 'embarrassed or worried about receiving services' (13%). Other research studies have found that embarrassment was a common reason for not accessing services (Yap et al., 2013). Due to the wide variety of barriers endorsed quantitatively, the qualitative study provided much richer information about youths' experiences with services.

4.6.2. Study Two

Results from the qualitative study demonstrated the complex, multi-level barriers impacting youths' ability to access helpful support and mental health services. Barriers at each level (structural, familial, and individual) appeared to influence each other. For instance, a structural barrier (e.g., limit of 12 therapy sessions) may lead to the development of an individual barrier (e.g., negative expectation of therapeutic relationship). Or a familial barrier (e.g., caregiver impacted their ability to access services) may influence a future individual barrier (e.g., youth did not recognize their mental health needs). The barriers reported in this study highlight the many shortcomings of our mental health system. Areas for improvement include increasing availability of evidence-based treatments and making existing services more youth-centered and accessible.

Structural Barriers

Findings indicated that appropriate services were sometimes simply not available for participants. One participant had to move to become eligible for a treatment program, which highlights the uneven distribution of services geographically in BC. In other situations, youth were told that they would need to pay for particular mental health treatments (e.g., DBT). Interestingly, waitlists were never mentioned as a barrier,

contrary to the concern in Canada regarding wait times for youth with mental disorders (Davidson et al., 2010). This finding is likely due to the lack of availability of services. Or perhaps waiting for services was not mentioned because waitlists are often longer for youth who have less severe symptoms (Kowalewski, McLennan, & McGrath, 2011), whereas participants in the current study had quite severe mental health needs. However, many participants reported a lack of knowledge regarding where to find necessary services. The confusion surrounding navigating the mental health system has been noted repeatedly as a significant barrier to accessing services in Canada (Mental Health Commission of Canada, 2012).

In terms of services for specific mental health problems, results indicated confusion surrounding service providers perception's of treatability of behaviour problems. At times youth were not provided service referrals following assessments indicating that they had a behaviour disorder. Similarly, a participant recalled feeling that there was no help available to him after he reached out for help from a school counselor. In both of these situations, youth were left feeling as if there was no available services and that it was completely up to them to change their behaviour. This is in stark contrast to the multiple treatments for CD with significant evidence supporting their effectiveness (Waddell et al., 2014). Therefore, although CD is a DSM-IV psychiatric disorder, individual service providers appear to have varying opinions on the legitimacy or helpfulness of this diagnosis (Coghill, 2013; Costello, 2004). Indeed there appears to be a policy-research gap in the area of service provision for CD (Waddell et al., 2005). Furthermore, CD is often seen as a marker for additional mental health needs, as was demonstrated in the current study. Therefore, the missed opportunities to engage and support youth when they are seen for assessments or when they reach out for help can be devastating to their future help-seeking behaviour. Future training is required for mental health clinicians to update their knowledge on treatments for CD so evidence-based treatments can be implemented and available to youth and families.

Participants also highlighted the limited availability of competent services for individuals with concurrent mental health and substance use disorders. In BC, addiction and mental health are treated in separate Ministries, with few overlapping concurrent disorder clinics available covering both. Consequently, often youth feel caught between

separate systems that have not historically communicated and coordinated care effectively (Bukstein & Horner, 2010; Libby, & Riggs, 2008). Often clinicians providing youth mental health services also feel uncomfortable bringing up substance use issues due to their lack of knowledge and training in this area (Christie, Stella, Dubar, Pulford, & Wheeler, 2013; Skinner, Roche, Freeman, & McKinnon, 2009). Furthermore, mental health services often require abstinence from substances to access treatment. However, abstinence-based programs have been found to be ineffective at treating individuals with SUDs (Marlatt & Witkiewitz, 2002), whereas harm reduction approaches are recommended (Poulin, 2006; Toumbourour et al., 2007). Instead of turning youth away by requiring abstinence, it might be beneficial to focus on goals that meet the current needs of the youth in a step-by-step manner, and slowly minimize risks. If youth are removed from programs, they lose the possibility of having a positive experience with services, which is a predictor for future service use (Gulliver et al., 2010).

Familial Barriers

Youth reported that their parents sometimes limited their ability to receive support, either because they overtly disagreed with attending services or because they were not able to bring them to appointments because of their own high needs. Family plays a central role in how children and youth develop opinions about help-seeking. Research indicates that the youth's family and friends are the first source of help if they believe they are experiencing a mental health problem (Jorm, Wright, & Morgan, 2007; Rickwood, Deane, & Wilson, 2007). In addition, research has demonstrated that youth are more likely to seek treatment if they know a friend or family member who has sought mental health treatment (Eisenberg, Golberstein, & Gollust, 2007; Yap et al., 2013), suggesting that youth in the current study would have been less likely to seek help if their parents had negative views of services. Furthermore, parents are typically the main identifiers of mental health needs when children are young; if parents have their own significant mental health needs, they may be less able to identify their children's needs (Kates, Gerber, & Casey, 2014). Indeed, participants in the current study frequently reported that their parents were unavailable due to their own significant mental health needs. This finding highlights the need for programs that support parents with the care of their children as a way to reduce or avoid the development of mental health problems among young people.

Often youth disengaged from their families during adolescence and became involved with romantic partners. For females these romantic relationships often resulted in significant intimate partner violence that prevented them from accessing services. Programs for at-risk girls on developing healthy relationships as well as what to do if you end up in an abusive relationship are essential. Dating violence prevention programs such as Safe Dates, have shown positive effects at reducing violence in relationships (Foshee, Bauman, & Greene, 2000). In addition, there is evidence for the effectiveness of a healthy relationships curriculum which has been delivered to high-risk female adolescents (Antle, Sullivan, Dryden, Karam, & Barbee, 2011). Information on women's shelters should be readily available at services that at-risk women may come across.

Individual Barriers

Biddle, Donovan, Sharp, and Gunnell (2007) described that barriers are not always concrete, structural, or demographic problems that if removed, will enable 'willing' participants to get help and receive services. Instead, sometimes barriers that prevent youth from accessing services involve their lack of understanding of mental health problems and pervasive societal stigma. In the current study, child maltreatment and trauma also affected youths' views of accessing services that often required them to feel vulnerable and engage in intimidating interpersonal relationships with adults. Individual barriers can be understood in terms of how youth see themselves, how they view others, and the interplay between the two.

Not identifying with having a mental health need

The most common individual barrier to accessing services was not identifying with having a mental health need, which is the first step in the help-seeking process. This finding was also found in studies involving young offenders (Walsh et al., 2011) and youth with predominantly internalizing disorders (Gulliver et al., 2010). One way of understanding these results comes from the mental health literacy literature, which demonstrates that many youth lack the education and basic knowledge to identify mental disorders (Reavley, & Jorm, 2011). There is evidence that adolescents are less equipped to understand mental health symptoms compared to young adults (Reavley & Jorm, 2011), which explains why some of the youth in the current study reflected back

over their adolescence and attributed their lack of understanding to their young age. A recent surge of research in Australia found that being able to label or identify a mental health problem was linked to intent to access services (Kelly, Jorm, & Wright, 2007). However, there is also evidence showing that teaching youth about the concepts of mental illness is only one component to increasing problem identification. For example, Walsh et al. (2011) found that even after a group of young offenders were educated about a list of mental health symptoms they continued to struggle to connect the descriptions with their own experiences, suggesting that something else was blocking their interpretation of their needs.

Many researchers have proposed that stigma is blocking youth from identifying with having a mental illness (Wright, Jorm, & MacKinnon, 2011; Yap et al., 2013). The literature on stigma proposes that youth often have a skewed and negative perception of people with mental disorders, and therefore have difficulty connecting their situation to this image. Instead, it is common for youth to minimize their mental health needs and rationalize their distress as being "normal" as a way to avoid feeling stigmatized or different (Biddle et al., 2007). Complicating the tendency for youth to want to see themselves as "normal", youth in the current study described that their reference point was skewed as their family and friends were often engaging in similar behaviours (e.g., substance use, and crime).

There seemed to be a difference between identifying mental health *symptoms* versus *disorders.* Youth in the current study readily endorsed having individual symptoms on the questionnaires, but often minimized their experiences when talking about mental illness as a concept and described that they were not "crazy". For youth with serious behaviour problems, King, Brown, Petch, and Wright (2014) hypothesized that it may be even more challenging to identify with having a mental health need, as it would make them feel vulnerable and too much in contrast to their identity as being "bad kids".

Results from this study demonstrate that there is a disconnect between the manner in which youth are seeing themselves and the way that service providers are describing their services. If they were more congruent, then youth may be more likely to

match their needs to the service options available. Community awareness campaigns have been recommended (Yap, Reavley, & Jorm, 2014), which are widespread and put information in media sources and outdoor advertisements. In Canada, mental health literacy in high schools has also been recommended as a way to ensure that mental health is universally taught to all students as part of their health curriculum (Kutcher, 2009; Pinfold, Stuart, Thornicroft, & Arboleda-Florez, 2005). However, anti-stigma campaigns remain essential to not only allow youth to learn about mental illness and recognize it, but also perceive it in themselves and seek support.

Mental health was not a priority

Some youth reported being focused on other more pressing needs such as managing relationships or finding a job to financially support themselves. This finding highlights that need for mental health service providers to connect youth with a wide range of additional services that meets their current needs (e.g., vocational assistance). In addition, youth described that the severity of their symptoms actually impeded them being able to actively seek support, which emphasizes the importance of earlier intervention in order to prevent a later severe level of impairment.

Wanted to handle it independently

Many youth described resistance to seeking services by saying that they wanted to handle their difficulties independently. Other studies have also found the desire for self-reliance as a prominent barrier to help-seeking for youth with internalizing disorders (Gulliver et al., 2010) and substance use disorders (Wu & Ringwalt, 2006). In the current study, the reason for this desire to handle their difficulties independently can be understood when taking into account their life circumstances. Many of the youth in this study experienced neglect and may have experienced their caregivers as unavailable to meet their needs, and therefore, they may have developed strategies to avoid seeking comfort from others. Other studies that interviewed young offenders found that they commonly wanted to handle their mental health needs independently especially if they did not have family or friends available for support (Walsh et al., 2011).

This behaviour may have been very adaptive at the time, but becomes problematic when other adults in their lives are in a position to offer support. These

findings shed light on the importance of service providers' sensitivity towards why youth may be rejecting treatment. In particular, it is essential for services to take into account youths' complex histories in order to provide a safe environment.

Negative expectation of the therapeutic relationship

Several youth in the study reported negative expectations of what the therapeutic relationship would be like. Attachment theory provides a framework for understanding this finding. Many of the youth in this study experienced severe maltreatment and caregiver instability, which are associated with developing insecure attachment styles and negative views of others (Baer & Martinez, 2006). These experiences put youth at risk of expecting future relationships with adults to be unpredictable or unsafe. Other research with young offenders have also found that youth are often worried that the therapist will tell them what is "wrong" with them or will not listen to them (Walsh et al., 2011). It is important to note that research suggests there is no relationship between youth's expectations of therapy and their clinical outcomes if they attend the sessions. Instead it is the youth's opinions of their actual experience in therapy that dictates their clinical outcomes (Watsford & Rickwood, 2014). These findings are promising, however, they also illustrate the importance of getting a youth to the first and subsequent appointments. To increase the chance that a youth will attend an initial appointment, the referral source should take the time to clearly outline the process of therapy and what the youth can expect. Indeed youth with serious behaviour problems have told researchers the importance of letting youth know why they are being referred in the first place (Naylor et al., 2008), in addition to being transparent and honest throughout the therapeutic process (Brown et al., 2014). Youth should also be told that they will be in charge of what information they choose to discuss as a way of increasing safety within the relationship (Brown et al., 2014). Therefore, in order for youth to engage in therapy and not have negative expectations of the process, they may need to feel in control of the sessions and know in advance that their therapist will respect this.

Some youth reported feeling upset with services that ended after they opened up to a therapist. A seamless transition between various levels of care is essential for youth (Sanders et al., 2014), and established relationships with service providers should be maintained whenever possible.

Worried about the negative consequences of receiving services

In addition to the more interpersonal concerns of starting therapy, youth also described other negative consequences they believed would occur as a result of seeking services. In particular, youth reported feeling that the justice system was not a safe place to seek support for fear that they would be somehow punished. For mental health screenings to be effective in juvenile justice settings, youth need to feel that disclosing their mental health needs will not negatively impact their sentencing.

Youth reported fear that they would need to return to foster care if they sought mental health support. Emphasis needs to be put on understanding the youths' needs and fears about foster care in order to address them. If the foster care placement is not going well, youth need to have a method of reporting these concerns and feeling that their needs will be heard.

4.7. Study Limitations

Several limitations are important to highlight for both Study One and Two. Regarding Study One, there was a high attrition rate from Wave 1 to 3, as only 48% of the original 179 youth participated in Wave 3. Since there was a five year period between data collection, and due to the high-risk nature of the youth in this population, a high attrition rate may be expected. However, analyses comparing those who participated in Wave 3 versus those who did not revealed statistically significant differences in terms of gender, ethnicity and location of original recruitment. Therefore, Wave 3 results may not adequately represent males, those of Aboriginal ethnicity, or those who were originally recruited from the youth forensic setting. It is possible that individuals of these demographics may be more impaired than those who participated in Wave 3, rendering the Wave 3 results an under-estimate of the population's true mental health profiles. However, analyses revealed that those who participated at Wave 3 did not differ in terms of Wave 1 diagnostic profiles compared to those who did not participate in Wave 3. Perhaps males, those of Aboriginal ethnicity, and those involved in youth forensic services were more difficult to reach due to poor contact information or more chaotic and transient living situations.

The high attrition rate from Wave 1 to 3 rendered some statistical analyses, such as logistic regression, impossible to conduct. Therefore, the analyses in Study One are primarily descriptive and exploratory and do not allow for an examination of how Wave 1 diagnoses predicted Wave 3 mental health profiles. Future studies should use multiple imputation to account for missing data, and thus would allow for more complex analyses regarding the stability of mental health problems from Wave 1 to 3. In addition, the use of diagnostic measures at Wave 1 (DICA-R) compared to the measures of clinically-elevated mental health problems (ASR, PCL-C) limited the ability to accurately assess the stability of diagnostic profiles over time. Furthermore, the DSM requires the presence of a functional impairment for a youth to meet criteria for a mental health diagnosis, which the current study did not assess. Due to the lack of this more stringent requirement, it is possible that the current study over-estimates the prevalence rates of diagnoses at Wave 1. Finally, it would have been beneficial to have more than two measures of symptoms over time to more fully assess the change and stability of symptoms during the five year period between Wave 1 and 3.

The Study One Mental Health Service Utilization and Barriers to Care Questionnaire at Wave 3 only provided information on service use during a six month period in young adulthood. Therefore, the current study provided very limited quantitative data on service use patterns during childhood and adolescence. To have a more accurate, objective, quantitative estimate of lifetime service use, an examination of Ministry records would have been needed. However, this was beyond the scope of the current project, and is recommended for future studies.

Study Two also had several limitations that are important to take into account when interpreting the data. The qualitative study was intended to better understand youths' positive and negative experiences with services as well as their barriers to care. To achieve this, the study directly asked youth about their perceptions of services throughout their lives. Thus, the barriers to care findings focus more heavily on the perceptions and attitudes of youth rather than the structural factors. Several research studies repeatedly demonstrate that there are limited evidence-based services available to children and youth who are faced with mental health challenges (Waddell et al., 2014). Due to limited awareness of the inadequacy of the mental health service system,

youth may have been unable to comment on the fact that sometimes services were simply not available early on in their lives.

Youth with the most complex mental health needs were chosen to participate in the study as a means of increasing the richness of data regarding their experiences with services. However, the downfall of this method means that the generalizability of the results are limited to youth with serious and complex mental health needs.

Chapter 5.

CONCLUSION

The current study examined the longitudinal mental health needs of males and females with serious behaviour problems and their experiences with services. Study One results demonstrated that mental health problems persisted from adolescence to young adulthood. Approximately half of participants endorsed clinically-elevated externalizing problems (substance dependence, antisocial behaviour, ADHD) and a third endorsed clinically-elevated internalizing problems (depressive and PTSD) in young adulthood. Externalizing problems appeared to be more stable than internalizing problems from adolescence to young adulthood. These results highlight the long-lasting impact that mental health symptoms have on healthy development. To prevent this chronic course of impairment, prevention and early treatment services are required. Unfortunately, many youth did not receive the necessary interventions in childhood when they are known to have a profound impact.

Study Two provided detailed accounts of youths' life histories, experiences with services and barriers to care through a qualitative interview. Participants reported experiencing severe child maltreatment, highlighting the need for a greater emphasis on protecting children from violence and neglect in BC. Programs should support high-risk, young families as a way of preventing child maltreatment. Furthermore, children and youth who have experienced maltreatment must be connected with supportive services that focus on mitigating negative outcomes and promoting healthy development. Parenting programs that focus on supporting healthy relationships and minimizing conflict are essential. However, findings from the current study demonstrated that limited services were available to participants and their families during childhood and instead the majority of services were not offered until adolescence.

Information on youths' interactions with the service system provided insight into ways to improve engagement and accessible services that match their multiple needs. Some youth reported life-altering, positive results from their involvement with treatment programs. These youth often emphasized the importance of particular service providers who made a difference. Participants preferred service providers who were empathic, patient, consistent and non-judgmental. In terms of improving service accessibility, participants pointed to the need for youth-centered services that are strengths-based, flexible, and use a harm-reduction approach. Youth often reported multiple needs beyond their mental health symptoms (e.g., employment, housing). Thus, services for high-risk youth must offer a comprehensive array of services aimed at improving quality of life and health.

The barriers to care themes were complex and occurred at the structural, familial, and individual level. In some instances, services were simply not available to youth. To address the confusion surrounding the treatability of behaviour disorders and SUDs, updated training for mental health clinicians on evidence-based treatments is essential. Many youth did not identify with having a mental health problem suggesting that they may have internalized societal perceptions that behaviour problems were not legitimate disorders requiring support. Mental health literacy and anti-stigma campaigns are also required to address the lack of knowledge and societal stigma surrounding mental health.

The many familial and individual-level barriers to accessing treatment appeared to be a result of a challenging upbringing filled with exposure to violence and traumatic experiences. To improve the outcomes of young people, involvement of families in prevention and treatment programs is critical. These results highlight the need for service providers to adopt a compassionate view of youth with serious behaviour problems if they are to provide safe and accessible services to these vulnerable youth.

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Appendix A.

Mental Health Service Utilization and Barriers to Care Questionnaire

SA.S 1) Within the past 6 months, have you received any services for mental health problems?			
	Yes (1)	No (0)	# Times
a) Community mental health center or outpatient clinic			
b) Therapist or family counselor			
c) Psychiatrists			
d) Emergency Room (< 24 hours)			
e) Hospital (> 24 hours)			
f) Self Help Group			
g) Nurse practitioner			
h) Priest, pastor, or other religious figure			
i) AA or NA			
h) Other _____			
Notes:			

SA.M 1) Within the past 6 months, have you been prescribed any medications for mental health problems? ❑0 No ❑1 Yes		
		How long?
a) Problem _____med:_____		
b) Problem _____med:_____		
c) Problem _____med:_____		
e) Problem _____med:_____		
Notes:		

SA.B. 2) Within the past 6 months, have any of the following prevented you from receiving services for any of these problems?			
	Yes (1)	No (0)	
a) You were worried about cost, money			
b) Provider would not accept insurance			
c) Insurance plan would not pay for treatment or do not have insurance			
d) Did not want to lose pay from work			
e) Could not get an appointment			
f) Could not get to an office when open			
g) Could not get through on telephone			
h) Had to wait too long to get to an office (i.e., long wait list)			
i) Did not think you could be helped			

j) Embarrassed to discuss the problem			
k) Needed to take care of children			
l) Worried that someone else might find out			
m) Could not get time off of work			
n) Did not know where to go			
o) Did not have a way to get there			
p) Did not want services			
q) There were no appropriate services for individuals of my race/ I did not feel comfortable with the services available			
r) There were no appropriate services for individuals of my gender/I did not feel comfortable with the services available			
s) Other _____			
Notes:			

Appendix B.

Qualitative Interview Guide

Preamble: We are interested in learning about the important things in your life that led you to where you are today. We are also interested in learning about your experiences with different support services that you may have received since you were young. There are no right or wrong answers; we would just like to know about your thoughts and experiences growing up.

Question 1: Let's start by drawing a timeline that shows important events in your life. These can be positive or negative events.

Prompts: We can start with your age and then add other things like when you went to elementary school, or high school, or when you moved, or got a job, or had a baby.

If not already marked: Let's write in times in your life when things were difficult for you.

Question 2: Can you tell me what things inside you (like your personality or other things about you) and outside you (like people, friends, services or situations) helped you to get through difficult times in your life? (can refer to examples from the negative events they provided on the timeline)

Prompt: Can you provide an example of something inside you and outside you?

Question 3: Sometimes when people experience difficult times they have a hard time coping, and sometimes stress can become so great that they become concerned about their ability to cope and their mental health.

Did you ever feel like you struggled to cope or were concerned about your mental health? How old were you? At the time, did you feel you needed some help? What did you think you needed help with? Were you able to ask for help? Why or why not? [Can you put this time period on the timeline?]

If yes: Did you receive any formal services (e.g. counsellor, doctor) at the time?

If yes: Apart from formal services, was there something or someone else that got you through this difficult time?

Was there ever a time where others worried about your ability to cope or were concerned about your mental health? Like a family member, a friend, a teacher or someone else? If so, who/when? What did they think you needed support for? [Can you put this time period on the timeline?]

If yes: Were you referred to a formal service (e.g. counsellor, doctor) at that time?

Question 4: Many young people experiment with using drugs or alcohol for many reasons. Let me remind you that your answers are confidential.

Have you ever used alcohol or drugs? If so, can you write on the timeline when you started using different types of drugs or alcohol?

Do you remember how you came to start using alcohol or drugs? And what made you decide to continue to use?

Some youth use substances and then develop mental health concerns, and other youth have mental health difficulties and then they use substances to cope, and for other youth it is both. How do you see the connection between mental health concerns and substances in your life?

In general, how did using alcohol/drugs make things in your life better or worse?

If you stopped using alcohol/drugs, what made you decide to stop?

Question 5: We are interested in knowing your experiences with different support services. Let's go through different types of services and see if you can write in when you were involved with these services on the timeline. (Go through the following individually)

> Housing: I'm going to ask you some questions about places you've lived since you were young. Who did you live with growing up?
>
> When you were younger (18 and younger), was there ever a time that you lived somewhere other than with your family? For example – did you ever live in a foster home, group home or something similar?
>
> Was there ever a time when you were older (19 years and older) that you needed help with finding a place to live? Did you ever receive a service that helped you find a home?
>
> Besides formal services, was there something else or someone else that helped you to find housing throughout your life?
>
> For youth in custody – When you were in custody what services did you receive there?
>
> Individual services – For each of the following services, we would like you to try to remember how old you were when you received them and mark them down on your time line if they are not already there. I will also ask you how you got the service (for example, who referred you or how you found out about it). Did you ever receive services for:
>
> Concerns about coping and your mental health? (prompts: therapist, counsellor, mental health worker, psychologist, psychiatrist)
>
> Besides formal services, was there something else or someone else that helped you cope with your mental health concerns?
>
> Using alcohol, drugs and addiction problems? (e.g. detox, drug and alcohol counsellor, AA/NA)
>
> Besides formal services, was there something else or someone else that helped you with alcohol, drugs, and addictions problems?

Difficulties within school or training programs? (e.g. special classroom, one-on-one support worker, educational assistant, counsellor etc.)

Besides formal services, was there something else or someone else that helped you in school?

Help getting a job (i.e. vocational services)?

Besides formal services, was there something else or someone else that helped you to find a job?

Help with income assistance?

Physical health problems and illnesses? (e.g. hospital, GP, nurse etc.)

Did you ever have someone who helped you out to get the services you wanted/needed – someone who knew your needs and spoke out for you or helped you get connected with services?

Are there any other services that you received that we haven't put on the timeline?

Family – When you were young, did your family ever need help because of problems that your parent(s), your siblings or others had – or problems in the family? If so, what were some of the difficulties they had? Let's mark these down on your time line. Did your family ever receive help? If so, what kind of help (e.g. social worker, family therapy) Do you know if your parents ever received parenting support?

Once all the services are on the timeline, ask overall questions:

Looking at all the services you received, was there someone who organized the different services or help that you got? (for example, someone who worked with you or your family over a longer period of time and could put services together)

If no: How did you handle this? Was it difficult to organize the services yourself?

If there is overlap with services on the timeline ask: Did the people providing X and Y services know about each other? (example: did your drug and alcohol counsellor ever communicate with your mental health therapist/psychiatrist?) If yes: How do you know they communicated? (e.g was there ever a meeting?)

Looking at the timeline, can you tell me which services were helpful? If so, how?

Looking at the timeline, can you tell me which services were unhelpful? If so, how?

What would have made the service more helpful?

Was there ever a time that you didn't complete a service? If so, what made you stop participating? What would have helped you stay with the service?

Did you feel that you had a choice in what services you received, in other words, was your voice heard?

Question 6: We are interested in learning about your experiences when you moved from child or youth services to adult services. (Refer to timeline if necessary)

Were there any interruptions or problems in getting services when you turned 19?

Did you receive help in moving from child to adult services? Did the child and adult service providers (e.g. counsellors) know about eachother?

What was the most difficult part of transitioning from youth to adult services?

What do you think would have improved your experience in making the switch from child/youth to adult services?

Question 7: If they have a child – Sometimes that transition to becoming a parent can be difficult. We are interested in learning about your experience. I just want to remind you of confidentiality.

Did you receive any services to help you when you first knew you were pregnant? How about during your pregnancy? Did you receive help when your child was born – for example, was there a support person for you when you were in the hospital or to help when you took your baby home? Once you were home, did you receive any help with learning how to take care for your baby? Did anyone help you connect with other parents and with services in your community? How about support for you and how you felt emotionally? How about support for physical problems you might have had in the birth? If so, what was helpful or unhelpful? What would have helped during this time? Did you ever worry that your child would be taken away from you? If so, how have you coped with that? And who has helped you with that?

Question 8: Looking back at your entire life, was there ever a time that you wanted/needed support for a mental health concern or addiction, but you were not able to get what you needed?

What got in the way of you accessing services?

Were you ever afraid that something bad would come from seeking services? Prompts: For example, family, friends, school or social services would find out and you were afraid this could lead to problems for you.

Question 9: When you think back over your life, what important events or people helped you get to where you are today?

Question 10: What have been the biggest challenges in your life?

What things would you most need to reach goals that are important to you?

What services would be most helpful to you?

Question 11: Looking back on your life and thinking of the different government services you've received, what message would you give the government in order to improve these services?

Question 12: Looking forward, what do you hope for yourself in the future? If they have children – what do you hope for your children?