Université de Montréal

Symptomatologie du trouble de personnalité limite chez les adolescents suivis par les services de protection de la jeunesse et les services de santé mentale de première ligne // Borderline Personality Disorder Symptomatology among Adolescents involved with Youth Protection Services and First-Line Mental Health Services

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Programme de sciences biomédicales
Faculté de médecine
en extension à l'Université du Québec à Trois-Rivières

Mémoire présenté
en vue de l'obtention du grade de Maître ès sciences (M.Sc.)
en sciences biomédicales
option Médicine expérimentale

décembre, 2022

Université du Québec à Trois-Rivières

Département d'anatomie, Faculté de médecine

Ce mémoire intitulé

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Résumé

L'objectif était d'évaluer les différences de sévérité et de symptômes du trouble de personnalité limite (TPL) selon le sexe et le contexte de service chez les adolescents suivis en protection de la jeunesse (PJ) et dans les services de santé mentale de première ligne au Québec. Un total de 45 adolescents (14 à 17 ans) présentant des traits du TPL ont été recrutés en PJ (n=35) et en CLSC (n=10). Le Borderline Symptom List (BSL-23) a mesuré la sévérité de la symptomatologie et le Life Problems Inventory (LPI) a évalué l'intensité du TPL. Des tests *t* d'échantillons indépendants et des tests Mann-Whitney *U* ont été utilisés pour analyser les différences entre les groupes. Les analyses ont révélé que les filles présentaient des scores moyens de sévérité (BSL-23) significativement plus élevés que les garçons et un score significativement plus élevé pour le chaos interpersonnel (LPI). Aucune autre différence significative n'est ressortie des analyses primaires. Des analyses complémentaires item par item du BSL-23 et du LPI, ont indiqué que les filles endossaient plusieurs comportements internalisés, et les garçons des comportements externalisés. Au niveau du contexte de service, le groupe PJ a obtenu des résultats plus élevés pour nombreux comportements externalisés, tandis que le groupe en première ligne a obtenu des résultats plus élevés pour plusieurs comportements internalisés. Les résultats de cette étude fournissent un premier aperçu des symptômes et de la sévérité du TPL dans ces contextes de service peu étudiés permettant de guider la détection et l'intervention précoces.

Mots-clés : Trouble de personnalité limite, protection de la jeunesse, services de santé mentale de première ligne, sexe, contexte de service

Abstract

The objective was to evaluate differences in the severity and symptoms of borderline personality disorder (BPD) according to sex and service context among adolescents involved with youth protection services (YPS) and first-line mental health services (FLMHS) in Quebec. A total of 45 adolescents (14 to 17 years old) with BPD traits were recruited from YPS (n=35) and CLSCs (n=10). The Borderline Symptom List (BSL-23) measured the severity of symptomatology while the Life Problems Inventory (LPI) evaluated the intensity of BPD. Independent samples *t*-tests and Mann-Whitney *U* tests were used to analyze group differences. Analyses revealed that girls had significantly higher mean symptom severity scores (BSL-23) than boys and a significantly higher interpersonal chaos score (LPI). No other significant differences emerged from the primary analyses. Supplementary item-by-item analyses of the BSL-23 and LPI, indicated that girls endorsed several internalizing behaviours, while boys numerous externalizing behaviours. In terms of service context, the YPS group scored higher on several externalizing behaviours, while the FLMHS group scored higher on many internalizing behaviours. The results of this study provide initial insights into BPD symptomatology and severity in these understudied service contexts and can guide early detection and intervention.

Keywords: Borderline Personality Disorder, Youth Protection Services, First-Line Mental Health Services, Sex, Service Context

Table of Contents

List of Tables

List of Abbreviations

BPD: Borderline Personality Disorder

BSL-23: Borderline Symptom List

CLSC: Local Community Service Centers (Centre local de services communautaires)

ED: Emergency Department

FLMHS: First- Line Mental Health Services (Refers to services provided by CLSCs in Quebec)

IQR: Interquartile Range

LPI: Life Problems Inventory

M: Mean

Mdn: Median

M-W: Mann-Whitney *U* Test

SD: Standard Deviation

YPS: Youth Protection Services

To my family,
I know you have supported me in heart and spirit.

Acknowledgements

I would like to thank my supervisors Dr. Lyne Desrosiers and Dr. Lise Laporte for their support, guidance, and patience throughout the conception of my research project and throughout the writing phases of my thesis. I realize that there were/are many challenges to completing a degree during a pandemic, and I am grateful for the opportunities provided to me. I would also like to thank my committee member Dr. Dominick Gamache for his input during our annual meetings.

Thank you to my family and friends who have provided ongoing encouragement and emotional support during my MSc. I would especially like to thank my partner Sahil and my dear friend Anita, who both encouraged me to pursue graduate studies and were a source of tremendous inspiration.

Thank you to all my colleagues and co-workers at Sainte Justine Hospital who have been a source of encouragement and motivation over the past year.

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A note on language:

The present study broadly utilizes the term “sex” to reflect sex assigned at birth.

Chapter 1. Introduction

From 2006 to 2018, emergency department (ED) visitation and hospitalization increased up to 75% for youth mental health problems in Canada (Canadian Institute for Health Information [CIHI], 2019a; Iyer et al., 2020). At ED presentation, youth mental health problems frequently include symptoms associated with borderline personality disorder (BPD), such as suicidality and self-harm, interpersonal problems, emotional regulation difficulties, and risk-taking impulsive behaviours (Cappelli et al., 2019). Hospitalizations for these symptoms are especially alarming. In Canada, approximately 2500 young people are hospitalized per year for self-harming injuries (CIHI, 2014) and 1 in 20 hospital stays are for harm caused by risk-taking impulsive behaviours such as substance abuse (CIHI, 2019b). Moreover, from 2013 to 2014 alone, Kids Help Phone Line reported a 29% increase in emotional health concerns, and a 22% increase in counselling for suicidal thoughts (Kids Help Phone, 2014). Across Canada, mental health service utilization and hospitalizations for self-harm, suicidality, and risk-taking impulsive behaviours are particularly prominent among adolescents aged 14 to 17 years old (CIHI, 2015; Kids Help Phone, 2022a, 2022b).

Outside of the ED, adolescents with these symptoms commonly utilize and/or receive mental health and psychosocial services (Cailhol et al., 2013; Moeller-Saxone et al., 2016). Youth protection services (YPS) involvement is nearly 5 times more common among adolescents with BPD relative to those with other personality disorders and no personality disorders (Chanen et al., 2007). Additionally, a European study has demonstrated that youth with BPD symptomatology have markedly high rates of mental health service utilization, with up to 98.4% utilizing inpatient treatments, and 79% utilizing outpatient services (Cailhol et al., 2013).

In Quebec, public mental health services and YPS are part of the health and social services system consisting of first-line, second line, and third-line services, which provide health and psychosocial services to the general population (Turbide, 2013). First-line mental health services (FLMHS), administered by local community services centres (known as CLSCs in Quebec), provide psychological support for individuals facing mild to severe mental health problems (Turbide, 2013). As part of the second line services, YPS are mandated to provide

psychosocial intervention for youth under the age of 18, when their protection or their development may be compromised due to abandonment, neglect, psychological maltreatment, sexual, or physical abuse (Ministère de la Santé et des Services sociaux [MSSS], 2008). This also encompasses instances where a minor may be a danger to themselves, including behavioral problems, truancy, and running away (MSSS, 2008). In these situations, YPS may remove the child or adolescent from the parental home and place them in out-of-home care (i.e., residential care or a foster home) (MSSS, 2008). Both FLMHS and YPS engage in referral and collaboration to provide services to youth across Quebec (Turbide, 2013).

Currently, a number of studies exist on BPD features and symptom severity among these service contexts (Chanen et al., 2022; Frappier et al., 2015; Gilbert et al., 2006; Schäfer et al., 2016; Thompson et al., 2019a; Thompson et al., 2019c; Toupin et al., 2004). Outside of YPS and FLMHS, the study of sex differences in BPD symptomatology has proven useful to identify sex-specific features of BPD, which can be utilized to inform prevention and treatment (Hoertel et al., 2014; Sansone & Sansone, 2011). Higher symptom severity in girls and women has generally been documented (Schäfer et al., 2016; Silberschmidt et al., 2015) and several studies have highlighted that internalizing symptoms are more common in women and adolescent girls (Bradley et al., 2005b; De Moor et al., 2009; Hoertel et al., 2014), and that an externalizing profile predominantly manifests itself among men and adolescent boys (Bradley et al., 2005b). Yet, little research has addressed sex differences using disorder-specific measures within the YPS (Schäfer et al., 2016) and FLMHS settings (Scalzo et al., 2018). Furthermore, no study has included both child-serving systems within their analyses. The lack of research on sex differences in these contexts is especially problematic given that sex-specific psychosocial impairment has been documented in clinical settings (McCormick et al., 2007), and the identification of sex-specific features may inform early treatment.

Despite frequent collaboration among both YPS and FLMHS and the presence of BPD features in both contexts (Schäfer et al., 2016; Thompson et al., 2019c), research has failed to compare BPD characteristics according to service context. Adolescents receiving FLMHS commonly present with a wide range of BPD symptoms, and the recurrent utilization of ambulatory mental health services has been linked to social and occupational impairment in these youth (Thompson et al., 2019c). Adolescents involved with YPS, also present with varying

levels of BPD symptom severity (Schäfer et al., 2016) and features (Toupin et al., 2004). Within this context, exposure to various forms of trauma and problematic parental behaviours are linked to greater BPD symptom severity (Kuo et al., 2015) and externalizing BPD-related features (Lüdtke et al., 2018; Sellers et al., 2019). It would therefore be of great interest to explore differences in BPD features and symptom severity according to service context, given the differential role of trauma in the development and manifestation of BPD. The identification of service context differences in BPD characteristics may be especially relevant in YPS context, as YPS caseworkers function as gateway providers, facilitating access to mental health services for these young people (Stiffman et al., 2000).

To summarize, sex differences in BPD symptomatology may inform treatment and prevention (Sansone & Sansone, 2011), yet little research exists on sex differences in symptom presentation and severity within the FLMHS and YPS contexts. Furthermore, despite collobaration among both child-serving systems and the presence of BPD symptoms within both service contexts (Schäfer et al., 2016; Thompson et al., 2019c), no study has examined differences in BPD features and symptom severity according to service context. Therefore, the primary objectives of the current research were as follows: 1) to explore sex differences in BPD symptom severity and features, 2) to explore service context differences in BPD symptom severity and features among adolescents serviced by YPS and FLMHS in Quebec, whilst employing disorder-specific scales.

The upcoming chapter describes BPD, its etiology, the current literature on sex and service context differences in BPD symptomatology, and the specific objectives and hypotheses of the present study. Chapter three presents the methodology, including the study design, measures used and their psychometric properties. The fourth chapter will describe the results, and the last two chapters will contain a scholarly discussion and conclusion.

Chapter 2. Literature Review

This section will describe the current literature on BPD in adolescence, both genetic and environmental contributions to its onset, and the relevance of conducting research on BPD within YPS and FLMHS settings. Lastly, the literature on sex differences and service context differences in BPD symptom severity and features will be presented.

2.1 Borderline Personality Disorder in Adolescence

2.1.1 Prevalence and Diagnostic Criteria

BPD is a psychiatric disorder that is broadly characterized by difficulties with self-image, impulsivity, emotional stability, and interpersonal relationships (American Psychiatric Association [APA], 2013), and may be reliably and validly diagnosed in adolescence (Kaess et al., 2014). The prevalence of BPD is estimated be to be between 0.9% and 1.3% during this developmental period (Johnson et al., 2008; Lewinsohn et al., 1997). In Quebec, a recent epidemiological study on BPD traits revealed an even higher prevalence of 6.3% among adolescents aged 12-14 years old (Guilé et al., 2021). However, this study is limited as it examined the prevalence of BPD traits, without providing a definition and only included youth with low cut-off scores on the Columbia Impairment Scale (scores from 13-16).

In the *Diagnostic and Statistical Manual of Mental Disorders-5th edition* (*DSM-5*), BPD is described by a total of 9 symptoms (Appendix 1), five of which must be met, to assign diagnosis (APA, 2013). In a factor analytic study, Sperenza et al. (2012) proposed that these diagnostic criteria may be divided into two primary factors in adolescence: internalizing and externalizing criteria. The former includes internally oriented criteria such as identity disturbance, feelings of emptiness, stress-related paranoid ideation, and efforts to avoid abandonment. The latter, includes externally oriented criteria such as impulsivity, suicide and self-harm, inappropriate anger, and unstable relationships. The 9th criteria, emotional dysregulation, loaded onto both factors, underscoring its role as a core feature of BPD. Notably, self-harm and suicidality are also regularly classified as internalizing behaviours (Hoertel et al., 2014; Johnson et al., 2003).

The diagnostic criteria are the same in adolescence, as in adulthood (National Colloborating Centre for Mental Health and Clinical Excellence, 2009). However, The *DSM-5* states that for the disorder to be diagnosed in adolescence, the features must be present for at least one year and that these maladaptive features must be persistent and not be limited to a developmental stage or explained by another mental disorder (APA, 2013). *The Clinical Practice Guideline for the Management of Borderline Personality Disorder* recommends considering assessment for BPD in adolescents aged 12 to 18 years old who manifest the following: marked emotional instability, frequent suicidal or self-harm behaviours, many co-occurring psychiatric conditions, lack of response to treatments for current symptoms, and high functional impairment (National Health and Medical Research Council, 2012). It is also imperative that the diagnosing clinician make the distinction between normative adolescent emotional dysregulation, interpersonal dysregulation, and identity confusion, and problematic manifestations of the features, based on the severity and intensity of these symptoms to confirm the presence of these criterion (National Colloborating Centre for Mental Health and Clinical Excellence, 2009).

2.1.2 Comorbidity and Psychosocial Impairment

Similar to BPD in adulthood (Shah & Zanarini, 2018), the disorder in adolescence shows high levels of comorbidity with mood disorders, disruptive behaviour disorders, anxiety disorders, eating disorders, and substance use disorders (Chanen et al., 2007; Kaess et al., 2012). BPD is also associated with psychosocial impairment such as academic related difficulties (including poor performance, truancy, grade repetition, school dropout), diminished participation in extracurricular activities (Bernstein et al., 1993; Chanen et al., 2007), higher rates of sexual activity and sexually transmitted infections, and relational issues (e.g.: shorter duration of friendships, low enjoyment of others, and lack of a "confidant") (Bernstein et al., 1993; Chanen et al., 2007; Wright et al., 2016). During adolescence, this psychosocial morbidity exists even at the subthreshold level (i.e. less than 5 diagnostic criteria) (Thompson et al., 2019c).

Adolescents with BPD are likely to be known to social services, placed in foster care, involved with youth justice services or placed in prison for impulsive behaviours that may be

criminal (Chanen et al., 2007; National Colloborating Centre for Mental Health and Clinical Excellence, 2009). This parallels BPD in adulthood which is also linked to criminal justice implication due to difficulties in controlling impulsive behaviours (Moore et al., 2017) and child protective services involvement in adulthood (Perepletchikova et al., 2012). Furthermore, BPD symptomatology in youth is associated with diminished role functioning, lower educational attainment and occupational status, and involvement of public assistance or welfare in adulthood (Winograd et al., 2008). While less research exists on functioning in men with BPD, a recent scoping review indicates that functioning in this sex is underscored by withdrawal in relationships, family, employment, and recreation (Larivière et al., 2022).

2.2 Etiology of Borderline Personality Disorder

It is well established that genetic and environmental etiological factors contribute to the development of BPD (Belsky et al., 2012; Crowell et al., 2009; Distel et al., 2011; Linehan, 1993). The predominant theoretical model, known as the *biosocial model*, proposes that BPD arises from the interaction of an emotionally invalidating environment and a biological vulnerability to emotional reactivity (Linehan, 1993). The following section will broadly describe evidence for both genetic and environmental influences in the onset of BPD. Furthermore, important psychological markers will be highlighted.

2.2.1 Environmental Risk Factors

Research has consistently shown a connection between childhood maltreatment (defined as various forms of abuse and neglect) and the development of BPD in adulthood (de Aquino Ferreira et al., 2018; Peng et al., 2021; Zanarini et al., 1997) and in adolescence (Buckholdt et al., 2015; Hutsebaut & Aleva, 2021; Ibrahim et al., 2018; Zanarini et al., 2020). This is especially the case for sexual abuse which has been found to be more frequent among adolescents with BPD compared to a an MDD group and a control group (Horesh et al., 2008), and is associated with a more severe form of BPD (increased suicidal behaviour) (Ferraz et al., 2013).

While childhood maltreatment is not a necessary antecedent in the development of BPD (Fruzzetti et al., 2005), youth who have experienced early trauma, are more likely to develop BPD symptomatology, compared to children who have not (Belsky et al., 2012; Cicchetti et al., 2014; Ibrahim et al., 2018). Moreover, the occurrence of maltreatment throughout several

developmental periods (i.e., cumulative trauma), is predictive of greater BPD features (Hecht et al., 2014; Ibrahim et al., 2018).

The familial environment in which an individual resides is a critical factor for the pathogenesis and manifestation of BPD symptomatology (Fassino et al., 2009; Mahan et al., 2018). The parent-child relationship has been described as an important environmental factor in the development of BPD, given its proximal nature (Vanwoerden et al., 2022). Outside of physical and sexual abuse, several maladaptive parenting behaviours, including high psychological control (Mahan et al., 2018), low parental care (Infurna et al., 2016), high overprotection (Machizawa-Summers, 2007), parental inconsistency (Carlson et al., 2009), invalidation (Vanwoerden et al., 2022), and problematic attachment style (Godbout et al., 2019) can all contribute to symptom presentation and onset of the disorder. For instance, one prospective study found that both childhood maltreatment and maladaptive parenting were linked to elevated risk for interpersonal difficulties in adolescence, which in turn increased risk for suicide attempts in later adolescence (Johnson et al., 2002). Moreover, studies evaluating parental behaviours in real time using ecological momentary assessment, have highlighted that invalidating behaviours such as punishment, are directly linked to greater BPD symptoms in daily life among adolescents (Vanwoerden et al., 2022).

Additionally, BPD symptoms may be passed from parent to child, even at the subthreshold level (Barnow et al., 2013). Therefore, parents with emotional regulation difficulties could be, in turn, at risk of invalidating their adolescent's emotional experience, which could lead to emotional regulation difficulties in adolescent offspring (Buckholdt et al., 2014). Adolescents with emotional regulation difficulties may then go on to develop increased externalizing behaviours and internalizing behaviours (Buckholdt et al., 2014; Morris et al., 2010). Studies employing mediation analyses have confirmed both direct and indirect relationships between emotional abuse/physical abuse and BPD features through emotional dysregulation (defined by intense response to emotions and slow return to emotional baseline) (Kuo et al., 2015; Rosenstein et al., 2018). Thus, underscoring the importance of emotional regulation difficulties which may be a product of a biological predisposition or learned environmentally through modelling and contribute to the onset of BPD (Bornovalova et al., 2013). Finally, other environmental factors such as low socioeconomic status (Cohen et al.,

2008), family adversity (Winsper et al., 2012), being bullied by peers in childhood (Lereya et al., 2013; Wolke et al., 2012) may also play a role in the onset of BPD.

2.2.2 Genetic Risk Factors

Research on genetic risk factors for BPD has demonstrated evidence for familial aggregation of the disorder (White, 2003). Twin studies provide heritability estimates ranging between 42% (Distel et al., 2008) and 69% (Torgersen, 2000). One study utilizing an adoption-biological family design, found that both paternal BPD features and parental externalizing disorders conferred risk for BPD in biological children, suggesting biological transmission of the disorder (Fatimah et al., 2020). However, research emphasizes the interaction of both environment and genes in the development of BPD (Amad et al., 2019). Furthermore, core traits of BPD (e.g., impulsivity and emotional dysregulation) are highly heritable, and if present in parents, may complicate the disentanglement of environmental and heritable temperamental contributions (Bradley et al., 2005a).

2.2.3 Mentalization as a Psychological Risk Marker

Alongside emotional dysregulation, social cognition deficits are theorized to be a core mechanism of BPD (Winsper, 2018). "Mentalization" or the ability to interpret the actions of others and the self in terms of intentional states (e.g. feelings, goals, beliefs, and needs) (Fonagy & Luyten, 2009; Somma et al., 2019) is a key social cognitive deficit in BPD and may be the result of childhood maltreatment or disrupted attachment in infancy (Winsper, 2018). In adolescence, hypermentalization (overattribution or overintepretation of others' mental states) has been identified as a psychological risk marker for BPD (Sharp et al., 2011; Somma et al., 2019; Winsper, 2018). Sharp et al. (2011) found that difficulties in emotional regulation may partially mediate the relationship between hypermentalization and BPD. As highlighted by the authors, hypermentalization may therefore reflect difficulties in emotional regulation in social situations (e.g., misattribution of affective states). Ultimately, difficulties in social cognition (e.g., hypertextualization) and emotional dysregulation may function on a loop leading to the manifestation of BPD traits in adolescence (Winsper, 2018).

2.3 BPD and Youth Protection Services

Many of the risk factors associated with BPD are ubiquitous among adolescents involved with youth protection (Collin-Vézina et al., 2011). Approximately 65% of these young people have experienced negligence, psychological, physical, or sexual abuse (Directeurs de la protection de la jeunesse, 2021). In Quebec, it is estimated that about 4% of adolescents followed by YPS have BPD, which is the personality disorder with the highest prevalence according to Gaumont's study (2010). BPD symptoms are common within this service context, with up to 29% having engaged in self-harm behaviours (Frappier et al., 2015), 20% having attempted suicide, and 25% regularly engaging in impulsive behaviours such as consumption of psychoactive drugs (Toupin et al., 2004). One study concluded that these difficulties are 3 to 10 times more likely to occur within the youth centre population compared to the regular population (Toupin et al., 2004). Notably, the two studies conducted in Quebec (Frappier et al., 2015; Toupin et al., 2004), are the sole ones to document these features among youth. Outside of Quebec, recent research indicates that BPD features are also common in adolescents involved with YPS (Katz et al., 2011; Lüdtke et al., 2018; Sellers et al., 2019). Lastly, around 34% of mothers in YPS have BPD, and approximately 50% of these mothers have their own history with YPS involvement in childhood (Laporte et al., 2018), highlighting the strong possibility of YPS implication among individuals with BPD.

2.4 BPD and First-Line Mental Health Services

Adolescents with BPD symptomatology frequently utilize mental health services (Cailhol et al., 2013). Much of the research on BPD in FLMHS settings has been conducted on samples from Orygen Youth Health, which is a government- funded mental health service for youth aged 15 to 25 years old in Australia (Chanen et al., 2007; Thompson et al., 2019a). Studies conducted on both sub-threshold and full-threshold BPD symptomatology in this setting indicate that on average, adolescents present with anywhere from 3.5 to 5.9 BPD symptoms (Cavelti et al., 2021; Chanen et al., 2009; Thompson et al., 2019a). Among help-seeking youth, the most commonly manifested symptoms are recurrent suicidality or self-harm, affective instability, and inappropriate anger (Thompson et al., 2019c). In Quebec, there is currently a dearth of research on BPD symptoms in FLMHS. However, CLSC physicians report that adolescents regularly

consult for personality disorders, in particular for BPD-related symptoms, including interpersonal difficulties (problems with friends, family) suicidal ideation, alcohol, and drug abuse (Gilbert et al., 2006). While this Quebecois study identified BPD features in CLSC services, it did not formally investigate BPD with disorder-specific scales.

2.5 BPD and Sex

Research suggests that BPD is more common in women and adolescent girls compared to men and adolescent boys (APA, 2000; Grilo et al., 1996) For example, the *DSM-IV-TR*, describes a 3:1 female to male sex ratio (APA, 2000). The *DSM-V*, highlights a similar preponderance (75%), among women with regard to BPD diagnosis (APA, 2013). Given this disparity between men and women, studies on sex differences in BPD prevalence in adults have been a source of controversy, with numerous biases potentially contributing to reported sex differences (Sansone & Sansone, 2011; Skodol & Bender, 2003; Widiger, 1998). Firstly, given that women present more within clinical settings, and that numerous studies take place within these settings, it has been argued that reported sex differences in BPD may be an artifact of sampling bias (Bjorklund, 2006). For instance, it is documented that men with BPD utilize less psychotherapy services and are more likely to utilize drug rehabilitation services (Goodman et al., 2010), potentially biasing results of sex difference studies conducted within traditional clinical settings. Secondly, biased diagnostic constructs and criteria rooted in sexism, socio-cultural differences, and normal differences in gender-role behaviour can also contribute to reported sex differences (Bjorklund, 2006; Sansone & Sansone, 2011). As noted by Chanen and Thompson (2016), certain behaviours such as anger and sexual promiscuity may be considered pathological in women yet viewed as normative behaviour in men. The authors highlight that the manifestation of these traits among men would most likely lead to a diagnosis of anti-social personality disorder, rather than BPD, as both disorders have overlapping features and the abovementioned biases regularly impact diagnoses (Bayes & Parker, 2017). Altogether, these biases are important to consider when evaluating sex differences in BPD symptomatology, as they may limit self-report, informant report, clinician measurement and diagnoses of BPD.

Notably, large population-based samples have contradicted traditional prevalence findings (Grant et al., 2008), describing an equal prevalence among both men and women. However, research employing large samples to examine sex differences in the manifestation of

symptoms continues to reveal important differences in men and women (Chanen & Thompson, 2016). Examining sex differences in BPD features has the potential to highlight sex-specific BPD features and shared features among girls and boys, with the possibility of tailoring prevention and treatment (Hoertel et al., 2014). The upcoming section will describe current findings on sex differences in BPD features and symptom severity.

2.5.1 Sex Differences in BPD Symptom Severity

Research reporting on sex differences in BPD symptom severity is scarce and reveals inconsistent results. In adulthood, one study indicates greater symptom severity in women with BPD (Silberschmidt et al., 2015). However, this study failed to employ a disorder-specific measure of symptom severity, utilizing the Symptom-Checklist-90-R and the Global Severity Index (GSI), which are measures of general psychiatric distress and severity (Silberschmidt et al., 2015). In an epidemiological sample, Busch et al. (2016) collected individual and informant perspectives on BPD symptom severity. While men self-reported greater symptom severity relative to women, informant-report results revealed no differences in symptom severity according to sex. Contrary to this, one study reported no differences in men and women with regard to symptom severity; however, this study also utilized a general scale of psychiatric distress to measure symptom severity and did not contain an equal proportion of men and women (McCormick et al., 2007), limiting the generalizabilty of the results.

In adolescence, while several studies have examined BPD symptom severity (Chanen et al., 2022; Goodman et al., 2011; Sekowski et al., 2022; Whalen et al., 2014), few studies have analyzed sex differences in BPD symptom severity globally. Bradley et al. (2006) report on sex differences in the severity of individual symptoms, however, the authors failed to provide an aggregate score of severity. The dearth of research on sex differences in BPD symptom severity in adolescence extends to YPS and FLMHS contexts. There is only one study on BPD symptom severity in the context of Brazilian YPS (Schäfer et al., 2016). This study used the Borderline Symptom List (BSL-23), a disorder-specific measure of BPD symptom severity (Schäfer et al., 2016) and created a binary measure of mean scores (mean scores : 3-4 = problematic levels of symptom severity, 0-2 = non-problematic level of symptom severity). The authors revealed that sex was not related to problematic symptom severity, however, girls displayed a higher mean

on the measure compared to boys. This study is limited by its small sample size, and the inclusion of youth solely involved in foster care. In the FLMHS context, Scalzo et al. (2018) employed the Borderline Personality Disorder Severity Index semi-structured interview to examine BPD symptom severity over the past three months. A greater proportion of girls aged 15-25 years old reported higher scores on this measure, yet no significant sex difference was observed. Furthermore, this sample consisted almost entirely of girls and participants were mostly outside of the adolescent age range.

Overall, findings on sex differences in BPD symptom severity in adulthood are conflicting and limited by the use of general measures of psychiatric severity. In adolescence, there is also limited research with regard to sex differences in global severity of the disorder. The research that does exist in adults and adolescents generally suggests higher symptom severity among women and adolescent girls, even in YPS and FLMHS contexts. Yet, many studies are dated, and authors were therefore not able to employ the most recent BPD symptom severity classification (Kleindienst et al., 2020). More research is needed utilizing BPD-specific measures, the recent severity classification, and balanced-group comparisons to better capture sex differences in symptom severity among adolescents in FLMHS and YPS contexts.

2.5.2 Sex Differences in BPD Features

In contrast to research on BPD symptom severity, multiple studies have examined sex differences in BPD features in adulthood. A consistent pattern emerges such that women are generally more likely to endorse an internalizing symptom profile. For instance, research utilizing large sample sizes has found chronic feelings of emptiness (Zanarini et al., 2011), identity problems (De Moor et al., 2009; Hoertel et al., 2014; Johnson et al., 2003), and affective instability (De Moor et al., 2009; Hoertel et al., 2014; Zanarini et al., 2011) to be more common in women, compared to men. Whereas men tend to endorse an externalizing profile primarily characterized by impulsivity (Zanarini et al., 2011). While contradictory, interpersonal difficulties (De Moor et al., 2009; Hoertel et al., 2014; Silberschmidt et al., 2015) have been reported to be more frequent in women (Hoertel et al., 2014) and some studies report self-harm and suicidality, to be more prevalent in women (Hoertel et al., 2014) and some in men (De Moor et al., 2009). Notably, it has been documented men and women vary according to impulsivity,

such that women are more likely to report self-harm and suicidality, and men are more likely to report risk-taking impulsive behaviours (Hoertel et al., 2014). While the abovementioned studies employed large representative clinical and community samples, they each used different methodological approaches to analyze sex differences. For instance, Hoertel et al. (2014) controlled for BPD symptom severity when examining group differences, whereas De Moor et al. (2009) analyzed differences according to age, which may explain the slightly inconsistent results.

Congruent with studies in adulthood, one study found that girls tend to display greater fear of abandonment, affective instability, and relationship difficulties, whilst boys display greater externalizing behaviours such as impulsivity and self-destructive acts (Zanarini et al., 2011). These findings are however limited, given that this sample was comprised only of 11-year-old children. The sole study to examine sex differences in adolescents echoes previous findings in adults, with girls displaying an internalizing profile characterized by fear of abandonment, emptiness, and emotional instability and boys displaying an externalizing profile characterized by anger, aggression, and antisocial presentation (Bradley et al., 2005b). This study utilized a developmentally appropriate measure of BPD features in adolescence, yet did not include adolescent self-report measures, which have been identified as best practice to assess BPD symptom expression (Hopwood et al., 2008).

Among youth receiving YPS and FLMHS, few studies have examined sex differences in individual BPD features. Toupin et al. (2004), noted that suicide attempts and identity issues were higher among girls involved with YPS, relative to boys. Furthermore, another study conducted among young people in out-home-home placement, reported that girls presented with higher substance and alcohol abuse, self-injurious behaviour, depression, suicidal threats and attempts, verbal aggression toward others, running away, and inappropriate behaviours compared to the opposite sex (Handwerk et al., 2006). However, neither study was designed to collect information among youth with BPD, henceforth, did not use BPD-specific scales. Within FLMHS, research has focused on individual symptoms primarily presented clinically among girls, such as impulsive sexual behaviour, failing to examine sex differences (Thompson et al., 2019b).

Altogether, research on sex differences in BPD features indicates an internalizing symptom profile among women and adolescent girls, and externalizing symptom profile in adolescent boys and men. These findings generally align with sex-specific theories of affect regulation, which suggest that women engage in internally oriented behaviours, and men engage in externally oriented behaviours such as impulsivity, to cope with negative emotions (Hoertel et al., 2014; Ingram et al., 1988; Zlotnick, 2002). However, there is an overall a lack of research using disorder-specific measures to explore sex differences in symptom expression among youth involved with YPS and FMLHS. It would therefore be of interest to explore if the same pattern emerges in these contexts, to inform treatment and prevention.

2.6 BPD and Service Context

As mentioned in the etiology section, the family environment plays an important role in the development and manifestation of BPD symptoms. It is imperative to consider the family environment when examining service context differences in BPD symptomatology, given that abusive environments are especially frequent in adolescents involved with YPS, compared to other child-serving systems (Ko et al., 2008).

2.6.1 Service Context Differences in BPD Symptom Severity

A small number of studies have examined BPD symptom severity among each individual service context; however, service context comparisons have not been made regarding symptom severity. For instance, several Australian studies have documented BPD severity in adolescents and young adults aged 15 to 25 years old within FLMHS (Chanen et al., 2022; Scalzo et al., 2018) and one study has been conducted on symptom severity in Brazilian YPS utilizing the BSL-23 (Schäfer et al., 2016). The results of the study revealed that 77% scored in the non-problematic symptom severity range, and 23%, in the problematic range. However, the most recent symptom severity classification for the BSL-23 was not available at this time (Kleindienst et al., 2020).

While, there is currently no research comparing differences in BPD symptom severity according to service context, there is evidence to suggest that symptom severity would be higher in YPS, relative to FLMHS, given the elevated rates of abuse in this service context (Fischer et

al., 2016). According to Zanarini (2002), the severity of traumatic experiences and duration of these experiences is linked to greater BPD symptom severity. This applies particularly to the severity of sexual abuse which has been associated with overall greater BPD symptom severity, and to increased severity in all four core symptom categories of BPD: difficulties in interpersonal relationships, affect regulation, impulsivity, and cognition. Furthermore, childhood sexual abuse has been consistently associated with an increase in BPD-related symptoms such as suicide and non-suicidal self-injury (Kaplan et al., 2016; Links et al., 2013), which are behaviours that are linked with greater symptom severity (Kleindienst et al., 2020). Contrary to these findings, Kuo et al. (2015) found that frequency of emotional abuse was predictive of BPD symptom severity when controlling for other forms of abuse.

Overall, these findings arguably imply that symptom severity may be greater among individuals involved with YPS, relative to FLMHS. However, more research is needed to evaluate this comparison.

2.6.2 Service Context Differences in BPD Features

Individual BPD features have not been compared according to service context, yet patterns in BPD features emerge according to service involvement. Adolescents involved with YPS display both externalizing and internalizing behaviours (Burns et al., 2004). However, YPS involvement has been increasingly connected to externalizing BPD features such as risk-taking impulsive behaviours (Sellers et al., 2019), non-suicidal self-injury, and suicidal behaviours (Katz et al., 2011; Lüdtke et al., 2018). This is especially the case for out-of-home placement, which has been consistently linked to behavioural problems (Berger et al., 2009; Esposito et al., 2013; Farley & McWey, 2021). In Quebec, one large longitudinal study found that behavioural problems commonly associated with BPD such as harming behaviours and substance abuse were predictive of out-of-home placement in youth aged 10-17 years old (Esposito et al., 2013). These studies, however, did not employ disorder-specific measures, and results solely represent trends in BPD-related symptoms in the YPS context.

Within the general adolescent population, both internalizing behaviours, externalizing behaviours, and family stress are associated with mental health service utilization (Zwaanswijk et al., 2003). In adolescents with BPD symptomatology receiving ambulatory mental health

services, common symptoms include inappropriate anger (38.7%), recurrent suicidality and self-mutilating behaviour (43.87%), affective instability (38.71%), and unstable and intense interpersonal relationships (29.6%) (Thompson et al., 2019c). Conversely, Cailhol et al. (2013) found that the receival of mental health services in adolescents with BPD symptomatology was not affiliated with any of the following: impulsivity, emotional regulation, and childhood psychological trauma (Cailhol et al., 2013).

To date, no research has analyzed differences in BPD features according to service context. While internalizing and externalizing symptoms exist in both contexts, YPS involvement has been increasingly linked to externalizing BPD-related behaviours (Katz et al., 2011; Lüdtke et al., 2018; Sellers et al., 2019). Exploring differences in features would inform intervention and treatment. This is especially important for YPS contexts, where caseworkers commonly facilitate access to mental health services (Stiffman et al., 2000).

2.7 Summary

The literature demonstrates patterns in symptom manifestation according to sex, such that women generally have greater symptom severity and a more internalizing symptom profile compared to men (De Moor et al., 2009; Hoertel et al., 2014; Silberschmidt et al., 2015). In adolescents, the same pattern appears to occur (Bradley et al., 2005b; Schäfer et al., 2016). In addition, current research highlights that while YPS involvement may be especially linked to greater BPD symptom severity and externalizing behaviours associated with BPD (Lüdtke et al., 2018; Sellers et al., 2019), no particular features appear to be associated with mental health service utilization among adolescents (Cailhol et al., 2013). Overall, there is a lack of research on adolescent sex differences and service context differences in BPD symptomatology within both YPS and FLMHS contexts.

2.8 Objectives and Hypotheses

The present study aimed to fill gaps in the current literature by examining sex and service contexts differences in BPD symptomatology among adolescents receiving services from YPS and FLMHS in Quebec, utilizing BPD-specific instruments.

Objective and Hypothesis 1:

The first objective was to determine if there was an association between higher BPD symptom severity and sex, utilizing the most recent symptom severity classification of the BSL-23 created by Kliendienst et al. (2020). A secondary part of this objective was to examine sex differences in mean symptom severity. Overall, it was hypothesized that girls would display higher symptom severity than boys as prior studies indicate greater symptom severity among this sex (Schäfer et al., 2016; Silberschmidt et al., 2015).

Objective and Hypothesis 2:

The second objective was to analyze sex differences in BPD features. In this regard, it was hypothesized that girls would display predominantly greater confusion about self, interpersonal difficulties, and affective instability, and that boys would display greater risk-taking impulsive behaviours as evidenced by previous research in adolescents (Bradley et al., 2005b) and adults (De Moor et al., 2009; Grant et al., 2008; Hoertel et al., 2014; Johnson et al., 2003; Zanarini et al., 2011). This hypothesis was developed based on the well-documented differentiation of internalizing and externalizing behaviours according to sex. It is further justified by sex-specific theories of affect regulation which propose that women engage in internalizing behaviours and men engage in externalizing behaviours in response to negative emotions (Hoertel et al., 2014; Ingram et al., 1988; Zlotnick, 2002).

Objective and Hypothesis 3:

The third objective was to examine if there was an association between higher BPD symptom severity and service context, utilizing the most recent symptom severity classification of the BSL-23 created by Kliendienst et al. (2020). A second part of this research aim was to examine service context differences in mean symptom severity. Altogether, we hypothesized

that adolescents receiving YPS would have greater symptom severity since exposure to extensive trauma is linked to high symptom severity (Kuo et al., 2015; Zanarini et al., 2002).

Objective and Hypothesis 4:

Lastly, the fourth aim was to examine differences in BPD features based on service context. YPS involvement is associated with greater externalizing behaviours commonly found in BPD (Lüdtke et al., 2018; Sellers et al., 2019), it was therefore hypothesized that impulsive behaviours would be predominant among adolescents receiving services from YPS compared to FLMHS.

Chapter 3. Methodology

3.1 Research Design

The present study employed a descriptive-comparative research design, as the purpose was to compare groups, without manipulation of an independent variable (Cantrell, 2011). Comparisons were made in BPD symptom severity and features according to sex. In addition, differences in BPD symptom severity and features were analyzed based on service context.

3.2 Research Context

Data for the current study was drawn from a broader project aimed at evaluating the effect of a training designed for child protection workers and primary care professionals: the TANGO Project. This training taught dialectical behavioural therapy (DBT) skills to CLSC and youth protection caseworkers (Desrosiers & Laporte, 2022). They were trained to use DBT strategies for themselves, to regulate their own emotions. It was hypothesized that the training would decrease their mood-dependent and counterproductive interventions and would have a positive impact on youth with BPD symptomatology.

To evaluate the effect of the training on adolescent outcomes, measures were taken pre-training (T_0) and post-training (T_1). The present study utilized adolescent pre-training (T_0) data and was conducted in the Youth Protection Services and CLSC teams of the CIUSSS Centre-Sud-de-l'Île-de-Montréal, the CIUSSS Mauricie-Centre-du-Québec, and the CISSS Montérégie-Est.

3.3 Participants

A convenience sampling method was used as participants were sampled based on a predetermined location, their easy accessibility, and a specific inclusion criterion (Fortin & Gagnon, 2016). The managers of the psychosocial teams at the CLSCs and youth centres registered professionals for the training who regularly serviced clients with BPD. These professionals were then asked to participate in the research and identify adolescents for recruitment. They were given information and contact forms to review and sign with adolescents who met the inclusion criteria. Once this document was signed, the primary researchers

contacted the adolescent (or parents) to schedule a time to conduct the research interviews. To participate in the research, adolescents had to be aged 14-17 years old and meet the following criteria: 1) Presence of least two of the following symptoms of BPD symptoms within the last 6 months: anger outbursts, aggression towards others, recurrent self-harm, suicidal ideation, threats, attempts, and substance abuse, 2) Exclusion criteria: intellectual disability and neurodevelopmental disorders.

3.3.1 Sample Size Determination

G*Power 3.1 was used to conduct a priori power analyses to estimate the necessary sample sizes required to conduct independent samples t-tests and chi-square tests, tests used compare groups (Kang & Huh, 2021). Given that little research is available on sex and service contexts differences in BPD symptom severity and features among adolescents in the YPS and FLMHS contexts, sample sizes were organized to have sufficient power to detect large effects (Deckers et al., 2015). For t-tests, the calculation in G*Power showed that a total sample of 52 participants was needed to obtain an actual power of 0.8 with a 0.05 significance level, and a large effect size (d = 0.8). For the chi-square tests, G*Power revealed that a sample size of 32 was necessary to achieve an actual power of 0.8 with a 0.05 significance level and large effect size (w = 0.05). Due to the COVID-19 pandemic, the desired sample size was not reached for the independent samples t-test analyses. However, these analyses were still conducted with our sample size (N=45) providing sufficient power to at least detect medium size effects.

3.4 Measures and Data Collection

3.4.1 Sociodemographic Questions

Demographic questions included in the present study were the following: age (14-17 years old), sex at birth (boy or girl), current living situation (at home with their family, in a foster home, in a residential program in Youth Protection Services).

3.4.2 Borderline Personality Disorder Symptom Severity

The Borderline Symptom List (BSL-23; Bohus et al., 2009; Kleindienst et al., 2020) is a self-report questionnaire containing 23 Likert scale questions used to evaluate the severity of BPD psychopathology. The BSL-23 items were constructed based on *DSM* criteria, and the opinion of both BPD patients and clinical experts (Bohus et al., 2009). Individuals were asked to answer questions regarding BPD symptoms in reference to the last week, with response options including: 0-not at all, 1-a little, 2-rather, 3-much, 4-very strong. The BSL-23 has good psychometric properties including a high internal consistency ($\alpha = 0.94$), good test-retest reliability ($r = 0.82$), and favorable convergent validity with other measures such as the Beck Depression Inventory, commonly used in BPD research ($r = 0.83$) (Bohus et al., 2009). The validated French version of the BSL-23 also has high internal consistency ($\alpha = 0.98$), and a one-factor structure (Janelle, 2014). This questionnaire is frequently used in research on adolescents with a BPD or with BPD symptomatology to measure symptom severity (Martín-Blanco et al., 2014; Schäfer et al., 2016; Valentin et al., 2015).

Kleindienst et al. (2022) recently divided the mean scores of the BSL-23 into six severity grades: none or low (0-0.3), mild (0.3-1.1), moderate: (1.1-1.9), high (1.9-2.7), very high (2.7-3.5), extremely high (3.5-4). The creation of this severity classification was based on the number of BPD *DSM* symptoms, Global severity Index (GSI) scores, and Global Assessment of functioning (GAF) scores (Kleindienst et al., 2020). Those in the moderate to extremely high groups have a greater number of BPD symptoms (between 5.22 +/- 2.04 and 7.2 +/- 1.23) and distinctly greater GSI scores (between 1.17 +/- 0.37 and 2.76 +/- 0.39), and share similar GAF scores (Kleindienst et al., 2020). Kleindienst et al. (2020), recommend using the clinical cut-off of 1.5 (moderate symptom severity) to distinguish BPD patients from a mixed control group. Therefore, in the present study, participants were divided into a high BPD symptom severity group (1.5-4) and a low BPD symptom severity group (0-1.49).

3.4.3 Borderline Personality Disorder Features

The Life Problems Inventory (LPI) is a self-report questionnaire for adolescents, containing 60 Likert scale items. It was designed as a screening tool or outcome measure to assess the intensity of the 4 core problem areas of BPD described by Marsha Linehan: emotional,

interpersonal, behavioural, and self/cognitive dysregulation (Rathus et al., 2015). This questionnaire was constructed based on existing measures of BPD that reflected each of the four core constructs such as the BPD module of the Structured Clinical Interview for the *DSM-IV* Axis II Personality Disorders (SCID-II) and the Diagnostic Interview for Borderlines - Revised (DIB-R) (Rathus et al., 2015). The LPI has strong internal consistency ($\alpha = 0.96$) and good convergent validity with related measures such as the Beck Depression Inventory ($r = 0.57$) and the Suicide Ideation Questionnaire – Junior Edition ($r = 0.59$). Participants were asked to select a response that describes the way they felt "most of the time" with response options ranging from: 1 – not at all like me, to 5 – extremely like me, and total sub-scale scores ranging from 15 to 75. This questionnaire has previously been used in studies to describe youth with BPD or BPD symptomatology in adolescents (Miller et al., 2000; Muehlenkamp et al., 2011).

The LPI contains 4 specific subscales with 15 questions, which include an impulsivity scale, confusion about self scale, interpersonal chaos scale, and emotional dysregulation scale. The impulsivity sub-scale assesses risk-taking impulsive behaviours such as substance use, and self-harm and suicidal behaviours. An example item is "I have made at least one suicide attempt" (Rathus et al., 2015, p. 5). The confusion about self subscale assesses problems with identity formation and goals. An example includes "Other kids my age seem surer than I am of who they are and what they want" (Rathus et al., 2015, p. 5). The emotional dysregulation scale includes items addressing difficulties in regulating emotions and slow return to baseline mood. For instance, "Once I get upset, it takes me a long time to calm down" (Rathus et al., 2015, p. 5). Lastly, the interpersonal chaos scale addresses difficulties with relationships commonly described by individuals with BPD. An example of an item from this subscale of the LPI is: "relationships with people I care about have a lot of ups and downs" (Rathus et al., 2015, p. 5). The LPI does not have normed cut-off scores for each sub-scale, therefore, was solely used for group comparison, as recommended. All questionnaires used in the present study are displayed in Appendix 3.

3.4.4 Data Collection

Prior to the COVID-19 pandemic (2017-2019), data collection was conducted directly at the Youth Protection Centers and CLSCs implicated. All questionnaires were completed

alongside a research assistant or one of the primary researchers who could answer participant questions. During the pandemic (2020), the same procedure took place through zoom.

3.5 Data Analyses

Descriptive statistics were conducted on all data. Less than 10% of data was missing per variable, thus data imputation methods were not employed (Bennett, 2009). As the sample size was small (n<50), Shapiro-Wilks tests ($p < 0.05$) were conducted to verify normality (Mishra et al., 2019). Outliers were maintained in the analyses because they did not change results (Carreiras et al., 2022). Given that the distribution for the BSL-23 scores was moderately skewed (1.00), both the mean and the median were reported. Chi-square tests were conducted to compare groups in BPD symptom severity according to sex and service context as variables were nominal. Mann-Whitney *U* tests were used to assess group differences in BSL-23 scores based on sex and service context because data were not normally distributed. Lastly, independent samples *t*-tests were used to verify group differences in LPI subscales based on sex and service context as data were normally distributed. If few significant items were found throughout the primary analyses, item-by-items analyses were conducted to further explore group differences. Bonferroni correction was applied for multiple comparisons. Cohen's *d* was used to express effect sizes. Effect sizes were classified as small ($d = 0.2$), medium ($d = 0.5$), and large ($d \geq 0.8$) (Sullivan & Feinn, 2012). Analyses were performed using *Statistical Package for the Social Sciences* (SPSS), version 28. All analyses were two-tailed and set at the 0.05 significance level.

3.7 Ethical Certification

Ethical certification for the TANGO Project was given by the comité d'éthique de la recherche jeunes en difficulté CIUSSS du Centre-Sud de-l'île-de-Montréal (# MP-CJM- IU-16-16). For adolescents 14 years of age and older in the care of youth protection, an exemption to obtain parental consent was granted by the ethics committee for several reasons. Firstly, many adolescents involved with YPS and who wanted to participate in the project, had parents who faced mental health challenges themselves or parents who disengaged from their rehabilitation, complicating the obtention of parental consent. Secondly, many young people in residential care

were no longer in contact with their parents. Lastly, parents who maintained involvement in their child's lives were often distrustful of YPS and refused to collaborate in research within this context. However, for participants receiving CLSC services, parental and adolescent consent was required. The consent form described the general nature of the study (evaluating the effect of a caseworker intervention on the psychological health of adolescents), benefits and risks, access to general results, and permission to use data for future research projects (Appendix 2).

3.8 Contributions to the Project

Given that the present study constitutes a secondary data analysis, the implication of all research members is warranted a description. The author of the present thesis was implicated in the conceptualization of the current project alongside the other primary investigators implicated in TANGO (Lyne Desrosiers and Lise Laporte). Data was primarily collected by the main researcher and research assistants. Data collection for two participants was collected by the author of this thesis, as were the analyses. The analyses were overseen by a statistician affiliated with the Institut universitaire Jeunes en difficulté.

Chapter 4. Results

4.1 Demographic Characteristics

As shown in Table 1, the sample consisted of 45 adolescents, with a little over half of the sample being girls. The majority of adolescents were involved with YPS and most of the sample was in out-of-home care. Notably, all participants in the care of YPS were also receiving mental health services. Service context group assignment was determined based on the primary service received. As indicated in Table 2, the YPS context was primarily composed of boys, and the FLMHS context consisted solely of girls. Furthermore, more boys were placed in out-of-care, while more girls were resided in the family home.

Table 1

Demographic Characteristics

	Valid N	*M or n*	*% of N*	*SD*
Age	43	15.45		0.96
Sex				
Girls		25	55.6%	
Boys		20	44.4%	
Service Context				
YPS		35	77.8%	
FLMHS		10	22.2%	
Living Environment				
Out-of-home		34	75.6%	
Family home		11	24.4%	

Note. YPS= Youth Protection Services, FLMHS= First Line Mental Health Services.

Table 2

Descriptive Statistics- Sex According to Service Context and Living Environment

	Girls % (n)	Boys % (n)
Service Context		
YPS	33.3 (15)	44.4 (20)
FLMHS	22.2 (10)	0 (0)
Living Environment		
Out-of-home	33 (15)	42.2 (19)
Family home	22.2 (10)	2.2 (1)

Note. YPS= Youth Protection Services, FLMHS= First Line Mental Health Services.

4.2 Descriptive Statistics of the BSL-23

In our sample, internal consistency for the BSL-23 was excellent ($\alpha = 0.97$). Descriptive statistics for the BSL-23 scale are presented in Table 3. The mean symptom severity ($M = 1.19$) denoted an overall moderate symptom severity (scores between 1.1-1.9) in the total sample. The median ($Mdn = 0.69$) indicated a mild symptom severity (scores between 0.3-1.1). Approximately one quarter of the sample was in the high symptom severity group.

Table 3

Descriptive Statistics of the BSL- 23

	n	*%*	*M*	*SD*	*Mdn*
High Symptom Severity	12	26.7%			
Low Symptom Severity	33	73.3%			
BSL- 23- Total Scores	45		1.19	1.11	0.69

Note. High Symptom Severity= scores between 1.5 and 4, Low Symptom Severity= scores between 0 and 1.49.

4.3 Comparisons in BPD Symptom Severity based on Sex

Table 4 compares BPD symptom severity according to sex. Chi-square results revealed no significant difference between BPD symptom severity group (high symptom severity group vs. low symptom severity group) based on sex. However, a Mann-Whitney *U* test demonstrated that adolescent girls displayed significantly higher total mean scores in symptom severity compared to boys.

Table 4

Comparisons in BPD Symptom Severity based on Sex

	Girls (n = 25)		Boys (n = 20)			
Comparison According to Sex	n	%	n	%	$\chi 2$	*p*
High Symptom Severity	9	36	3	15	2.51	0.113
Low Symptom Severity	16	64	17	85		
	Mdn	*IQR*	*Mdn*	*IQR*	M-W	
BSL-23- Total Scores	1.09	0.53-2.76	0.5	0.26-0.91	148	0.02*

Note. **p*< 0.05, *IQR* = Interquartile range; M-W= Mann- Whitney *U* test; High Symptom Severity = scores between 1.5 and 4, Low Symptom Severity = scores between 0 and 1.49.

4.4 Sex Differences in Individual Items of the BSL-23

To further understand sex differences in symptom severity, supplementary analyses were conducted on all items of the BSL-23. Mann-Whitney *U* tests were used to explore group differences given that data were not normally distributed. Bonferroni correction was not applied as analyses were exploratory. As shown in Table 5, girls were significantly higher on several internalizing items and one externalizing item pertaining to fascination with death.

Table 5

Sex Differences in Individuals Items of the BSL-23

	Girls (n = 25)		Boys (n = 20)			
BSL-23 Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
1. It was hard for me to concentrate[i]	3.00	1.00-3.50	2.50	1.25-4.00	246.50	0.935
2.I felt helpless[i]	1.00	0.00-3.00	0.00	0.00-0.00	131.50	0.005*
3. I was absent-minded and unable to remember what I was actually doing[i]	1.00	0.00-2.50	2.00	0.00-3.00	214.00	0.389
4. I felt disgust[i]	1.00	0.00-3.00	0.00	0.00-1.00	198.00	0.190
5. I thought of hurting myself[e]	0.00	0.00-2.50	0.00	0.00-1.75	233.00	0.649
6. I didn't trust other people[i]	2.00	1.00-3.00	1.00	0.00-3.00	208.50	0.480
7. I didn't believe in my right to live[e]	0.00	0.00-2.50	0.00	0.00-0.75	204.50	0.224
8. I was lonely[i]	2.00	0.50-3.00	0.00	0.00-1.00	124.50	0.003*
9. I experienced stressful inner tension[i]	3.00	1.00-4.00	1.00	0.00-3.00	170.00	0.061
10. I had images that I was very much afraid of[i]	1.00	0.00-3.00	0.00	0.00-1.00	184.00	0.092
11. I hated myself[i]	1.00	0.00-2.00	0.00	0.00-0.00	169.00	0.036*
12. I wanted to punish myself [e]	0.00	0.00-2.00	0.00	0.00-1.50	200.50	0.193
13. I suffered from shame[i]	0.00	0.00-3.00	0.00	0.00-1.00	198.50	0.176

Table 5 (continued)

BSL-23 Item	Girls (n = 25)		Boys (n = 20)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
14. My mood rapidly cycled in terms of anxiety, anger, and depression[i,e]	2.00	0.00-4.00	0.00	0.00-1.75	163.00	0.036*
15. I suffered from voices and noises from inside and/or outside my head[i]	0.00	0.00-0.50	0.00	0.00-0.00	216.50	0.251
16. Criticism had a devastating effect on me[i]	1.00	0.00-3.00	0.00	0.00-1.00	161.00	0.033*
17. I felt vulnerable[i]	2.00	0.00-3.00	0.00	0.00-1.00	159.50	0.026*
18. The idea of death had a certain fascination for me[e]	0.00	0.00-1.00	0.00	0.00-0.00	183.00	0.049*
19. Everything seemed senseless to me[i]	2.00	0.00-2.50	0.00	0.00-1.00	163.00	0.036*
20. I was afraid of losing control[i]	2.00	0.00-4.00	0.00	0.00-2.00	170.00	0.054
21. I felt disgusted by myself[i]	0.00	0.00-3.00	0.00	0.00-0.00	179.00	0.031*
22. I felt as if I was far away from myself[i]	0.00	0.00-2.00	0.00	0.00-0.00	176.50	0.049*
23. I felt worthless[i]	0.00	0.00-2.00	0.00	0.00-0.00	189.00	0.103

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For Items 2 and 6, the Valid N= 44. Internalizing items are followed by an [i] symbol, and externalizing items are represented by [e] symbol.

4.5 Sex Differences in BPD Features

In our sample, internal consistency for the LPI ($\alpha = 0.96$) was excellent. Results of the independent samples *t*-tests used to analyze sex differences in BPD features are shown in Table 6. Interpersonal chaos was significantly higher among girls. No significant group differences emerged for confusion about self, emotional dysregulation, and impulsivity.

Table 6

Sex Differences in BPD Features

	Girls (n = 25)		Boys (n = 20)				
LPI-Subscales	*M*	*SD*	*M*	*SD*	*t*	*p*	*d*
Confusion about Self	39.92	12.93	33.70	11.42	1.69	0.099	
Impulsivity	36.56	13.57	35.33	12.72	0.31	0.758	
Interpersonal Chaos	44.88	12.95	33.33	10.69	3.21	0.003*	0.96
Emotional Dysregulation	40.90	13.95	37.46	15.74	0.78	0.442	

Note. * $p < 0.0125$ with Bonferroni correction. Cohen's *d* effect sizes: small ($d = 0.2$), medium ($d = 0.5$), and large ($d \geq 0.8$).

4.6 Sex Differences in Individual Items of the LPI

To further understand sex differences within each subscale of the LPI, supplementary item-by-item analyses were conducted. Mann-Whitney *U* tests were used to explore group differences given that data were not normally distributed. Bonferroni correction was not applied as analyses were exploratory. Results are reported for each subscale in Tables 7 to 10.

4.6.1 Sex Differences in Items of the Interpersonal Chaos Subscale

As shown in the item-by- item analyses in Table 7, girls scored significantly higher on internalizing features related to fear of abandonment and externalizing features pertaining to difficulties in relationships. No other significant group differences emerged between the sexes.

Table 7

Sex Differences in Items of Interpersonal Chaos Subscale

	Girls (n = 25)		Boys (n = 20)			
Items	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
4. I worry a lot about being left alone[i]	3.00	2.00-4.00	1.50	1.00-3.00	128.00	0.004*
8. I often feel sad and unloved[i]	3.50	2.25-4.00	2.00	1.00-3.00	123.00	0.005*
12. Relationships with people I care about have a lot of ups and downs[e]	4.00	2.50-5.00	3.00	2.00-5.00	205.00	0.284
16. I hate to spend time alone[i]	3.00	2.00-4.00	2.00	1.00-3.00	179.50	0.098
20. I will sometimes do almost anything to avoid feeling alone[i]	3.00	2.00-4.00	1.00	1.00-2.00	92.00	<0.001*
23. When things don't go my way, I give up and feel hopeless[i]	3.00	1.00-4.00	2.00	1.00-2.75	173.50	0.069

Table 7 (continued)

Items	Girls (n = 25)		Boys (n = 20)		M-W	*P*
	Mdn	*IQR*	*Mdn*	*IQR*		
28. I feel very nervous, angry, empty when I'm alone[i]	2.00	1.00-4.00	1.50	1.00-3.00	192.00	0.165
32. I often fear I will be abandoned by people I feel close to[i]	5.00	3.50-5.00	3.00	1.00-4.75	122.50	0.002*
36. I often fear I will totally fall apart if someone important abandons or rejects me[i]	5.00	3.00-5.00	2.00	1.00-4.00	129.00	0.004*
40. Many of my relationships have been full of intense arguments[e]	3.00	1.00-4.00	2.00	2.00-3.75	242.00	0.852
44. I have had lots of breakups with people I've been close to[e]	4.00	1.50-4.50	2.00	1.00-3.00	150.50	0.020*
48. In close relationships, I often think the other person is perfect sometimes, but I think they're terrible at other times[e]	1.00	1.00-3.50	1.00	1.00-2.00	189.50	0.201
52. My relationships with others are often very strong or intense, but they don't go that smoothly[e]	2.00	1.00-5.00	2.00	1.00-3.00	233.00	0.911
56. Sometimes I beg someone to try to stop them from leaving me[i]	2.00	1.00-4.00	1.00	1.00-1.00	137.00	0.004*
60. I often don't get along with authority figures (such as parents or teachers)[e]	2.00	2.00-3.75	2.00	2.00-4.75	225.00	0.712

Note. *$p < 0.05$, *IQR* = Interquartile range; MW= Mann-Whitney *U*; MW= Mann-Whitney *U* test, For Items 2, 13, 15, the valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.6.2 Sex Differences in Items of the Confusion about Self Subscale

Table 8 shows item-by-item analyses of the confusion about self subscale which revealed that girls scored significantly higher on several internalizing items such as being unhappy with oneself, feeling bored, and changing minds. No other significant differences emerged.

Table 8

Sex Differences in Items of the Confusion about Self Subscale

	Girls (n = 25)		Boys (n = 20)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
1. I am not sure who I am or what I want in life [i]	2.00	1.00-4.00	2.00	1.00-4.00	235.50	0.732
5. I sometimes go into a daze and lose awareness of things going on around me [i]	3.00	2.00-4.00	2.50	2.00-4.00	204.50	0.287
9. I sometimes feel very unhappy with who I am [i]	3.00	2.00-4.00	1.00	1.00-2.75	138.00	0.009*
13. Other kids my age seem surer than I am of who they are and what they want [i]	2.00	1.50-3.00	2.00	1.00-3.75	225.00	0.556
17. I feel lonely and empty most of the time [i]	3.00	1.50-4.00	2.00	1.00-3.00	175.00	0.076
21. I feel pretty lost and don't know where I am going in life [i]	2.00	1.00-3.50	1.50	1.00-3.00	213.50	0.381
25. I'm not that mature for my age, and I don't know what I want to do with my life [i]	2.00	1.00-2.00	1.00	1.00-2.00	228.00	0.581
29. I often feel empty or bored [i]	2.00	1.50-4.00	1.00	1.00-2.00	155.00	0.024*
33. I often feel like I am not real, as if I'm physically separated from my feelings [i]	2.00	1.00-4.00	1.00	1.00-2.00	169.00	0.051
37. I'm so different at different times that I sometimes don't know who I really am [i]	3.00	1.00-4.00	1.00	1.00-3.00	174.00	0.071

Table 8 (continued)

Item	Girls (n = 25)		Boys (n = 20)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
41. I'm often confused about my goals [i]	3.00	2.00-3.00	3.00	2.00-4.00	214.50	0.401
45. I often change my mind about the kind of friends I want [i]	2.00	1.00-3.00	1.00	1.00-2.00	166.00	0.032*
49. I'm often not sure what I really believe in [i]	2.00	1.00-4.00	2.00	1.00-4.00	216.50	0.608
53. Sometimes it seems as if things around me are not real, as though I'm in a dream [i]	2.00	1.00-3.50	1.00	1.00-2.00	206.00	0.426
57. I often have trouble keeping my attention on what I need to do (like doing homework or solving a problem [i]	4.00	3.00-5.00	4.00	2.50-5.00	240.50	0.820

Note. *p < 0.05, *IQR* = Interquartile range; MW= Mann-Whitney *U*. For Item 13, the valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.6.3 Sex Differences in Items of the Emotional Dysregulation Subscale

Table 9 displays analyses of sex differences in items of the emotional dysregulation subscale. These analyses revealed that girls scored significantly higher on an externalizing item pertaining to self-harm and an internalizing item concerning depression. No further group differences were revealed.

Table 9

Sex Differences in Items of the Emotional Dysregulation Subscale

	Girls (n = 25)		Boys (n = 20)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
3. I sometimes get so upset that I want to hurt myself seriously [e]	3.00	1.00-5.00	1.00	1.00-2.50	159.00	0.023*
7. Killing me may be the easiest way of solving my problems [i]	1.00	1.00-2.50	1.00	1.00-1.00	195.00	0.141
11. More and more I often think of ending my own life [i]	1.00	1.00-2.00	1.00	1.00-2.00	222.00	0.656
15. When I don't get my way, I quickly lose my temper [e]	3.00	2.00-4.00	2.00	2.00-3.75	197.00	0.300
19. Even little things get me really depressed [i]	3.00	1.00-4.00	1.50	1.00-2.75	157.50	0.028*
23. When things don't go my way, I give up and feel hopeless [i]	3.00	1.50-4.00	2.00	1.00-3.00	209.50	0.343
27. Once I get upset, it takes me a long time to calm down [i]	3.00	2.00-4.00	3.00	2.00-3.75	244.00	0.887
31. I feel angry a lot of the time [e]	2.00	1.00-4.00	3.00	2.00-5.00	202.50	0.267
35. I often get furious at people [e]	2.00	2.00-4.00	2.00	1.00-4.75	237.00	0.759

Table 9 (continued)

Item	Girls (n = 25)		Boys (n = 20)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
39. I get into arguments very easily [e]	2.00	1.00-3.50	2.50	1.00-4.00	230.00	0.639
43. I often feel very anxious and worried about things [i]	4.00	2.00-5.00	3.00	2.00-4.00	169.00	0.056
47. I get very moody, where I change quickly from feeling OK to feeling really bad or angry [e]	4.00	3.00-5.00	2.00	1.00-5.00	180.50	0.162
51. Sometimes I get so angry that I lose control [e]	2.00	1.50-5.00	3.00	2.00-5.00	204.00	0.413
55. Even little things get me really angry [e]	3.00	1.50-4.50	2.00	1.25-4.00	230.00	0.640
59. I get so angry that I hit people or throw things [e]	1.00	1.00-2.00	1.50	1.00-3.00	206.50	0.267

Note. *p < 0.05, *IQR* = Interquartile range; MW= Mann-Whitney *U.* For Items 3, 4,12, 13, the valid N=44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.6.4 Sex Differences in Items of the Impulsivity Subscale

Item-by-item analyses of the impulsivity subscale revealed that girls obtained significantly higher scores on externalizing items pertaining to non-suicidal self-injury and suicidal attempts. Whilst boys showed significantly higher medians for items regarding physically hurting someone and damaging property. As shown in table 10, no other differences emerged.

Table 10

Sex Differences in Items of the Impulsivity Subscale

	Girls (n = 25)		Boys (n = 20)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
2. I usually act quickly, without thinking [e]	4.00	3.00-5.00	3.00	2.25-4.00	203.50	0.272
6. Sometimes I plan to go to class, but will change my mind if something better comes along [e]	1.00	1.00-2.50	1.00	1.00-2.00	250.00	1.00
10. If I want to do something, I just do it without thinking of what might happen [e]	4.00	2.00-4.00	3.00	2.00-3.75	205.00	.289
14. I often have too much to drink or get really drunk [e]	1.00	1.00-2.00	1.00	1.00-1.75	238.50	0.742
18. I often get high on street drugs like marijuana or other drugs [e]	1.00	1.00-3.50	1.00	1.00-2.75	226.50	0.543
22. I have deliberately hurt myself without meaning to kill myself [e]	3.00	1.00-5.00	1.00	1.00-3.00	159.00	0.027*
26. I have made at least one suicide attempt [e]	4.00	1.00-5.00	1.00	1.00-1.75	163.00	0.024*

Table 10 (continued)

Item	Girls (n = 25)		Boys (n = 20)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
30. I've eaten so much food that I was in a lot of pain or had to throw up [e]	1.00	1.00-2.50	1.00	1.00-1.00	216.50	0.325
34. I've spent money on things I didn't need or couldn't afford [e]	1.00	1.00-3.50	1.00	1.00-3.00	223.00	0.495
38. I've lost my temper and really yelled or screamed at someone [e]	3.00	1.50-3.00	3.50	1.25-4.00	246.50	0.935
42. I've threatened to physically hurt someone [e]	1.00	1.00-4.00	3.00	2.00-5.00	154.00	0.023*
46. I've physically hurt or attacked someone [e]	1.00	1.00-3.00	2.00	1.00-4.75	202.50	0.246
50. I have damaged property [e]	1.00	1.00-3.00	3.00	1.00-4.00	157.50	0.047*
54. I've done something against the law [e]	1.00	1.00-3.00	2.00	1.00-3.00	214.50	0.557
58. I've had sex with people I hardly knew, or had unsafe sex [e]	1.00	1.00-4.00	1.50	1.00-3.75	235.50	0.715

Note. *p < 0.05, *IQR* = Interquartile range; MW= Mann-Whitney *U.* For Items 13 and 14, the valid N=44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.7 Comparisons in BPD Symptom Severity based on Service Context

As shown in Table 11, a chi-square test was employed to compare BPD symptom severity based on service context. No difference emerged in service context based on BPD symptom severity category. No service context differences were observed in the total mean scores in symptom severity.

Table 11

Comparisons in BPD Symptom Severity based on Service Context

	YPS (n = 35)		FLMHS (n = 10)			
Comparison According to SC	n	%	n	%	$\chi 2$	*p*
High Symptom Severity	9	25.7	3	30	0.07	0.787
Low Symptom Severity	26	74.3	7	70		
	Mdn	*IQR*	*Mdn*	*IQR*	M-W	
BSL-23- Total Scores	0.65	0.30-1.52	1.02	0.37-2.12	151.50	0.521

Note. SC = service context; $p < 0.05$, *IQR*= Interquartile range; M-W= Mann-Whitney *U* test; High Symptom Severity = scores between 1.5 and 4, Low Symptom Severity = scores between 0 and 1.49.

4.8 Service Context Differences in Individual Items of the BSL-23

To further understand service differences in symptom severity, supplementary analyses were conducted on all items of the BSL-23. Mann-Whitney *U* tests were used to explore group differences given that data were not normally distributed. Bonferroni correction was not applied as analyses were supplementary. As shown in Table 12, no significant differences emerged.

Table 12

Service Context Differences in Individual Items of the BSL-23

	YPS (n = 35)		FLMHS (n = 10)			
BSL-23 Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
1. It was hard for me to concentrate[i]	3.00	1.00-4.00	2.00	0.75-3.00	133.00	0.239
2.I felt helpless[i]	0.00	0.00-2.00	0.00	0.00-2.00	154.00	0.932
3. I was absent-minded and unable to remember what I was actually doing[i]	2.00	0.00-3.00	0.00	0.00-2.00	165.00	0.799
4. I felt disgust[i]	0.00	0.00-2.00	1.50	0.75-3.00	157.00	0.588
5. I thought of hurting myself[e]	0.00	0.00-2.00	0.50	0.00-3.00	154.00	0.502
6. I didn't trust other people[i]	1.50	0.00-3.00	1.00	1.00-2.00	165.00	0.886
7. I didn't believe in my right to live[e]	0.00	0.00-2.00	0.00	0.00-2.25	169.00	0.848
8. I was lonely[i]	1.00	0.00-3.00	1.00	0.00-3.00	151.50	0.501
9. I experienced stressful inner tension[i]	2.00	1.00-4.00	2.50	0.75-4.00	164.00	0.759
10. I had images that I was very much afraid of[i]	0.00	0.00-3.00	1.00	0.00-4.00	144.50	0.352
11. I hated myself[i]	0.00	0.00-2.00	0.50	0.00-2.50	150.50	0.448
12. I wanted to punish myself [e]	0.00	0.00-2.00	0.50	0.00-2.50	149.50	0.423

Table 12 (continued)

BSL-23 Item	YPS (n = 35)		FLMHS (n = 10)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
13. I suffered from shame[i]	0.00	0.00-2.00	0.00	0.00-3.25	164.00	0.730
14. My mood rapidly cycled in terms of anxiety, anger, and depression[i,e]	1.00	0.00-4.00	2.00	0.75-4.00	135.00	0.249
15. I suffered from voices and noises from inside and/or outside my head[i]	0.00	0.00-0.00	0.00	0.00-2.00	146.50	0.243
16. Criticism had a devastating effect on me[i]	1.00	0.00-3.00	0.50	0.00-1.75	155.00	0.556
17. I felt vulnerable[i]	0.00	0.00-3.00	2.00	0.00-3.00	151.50	0.489
18. The idea of death had a certain fascination for me[e]	0.00	0.00-0.00	0.50	0.00-1.75	128.00	0.099
19. Everything seemed senseless to me[i]	1.00	0.00-2.00	1.00	0.00-2.25	151.00	0.489
20. I was afraid of losing control[i]	1.00	0.00-3.00	1.00	0.00-2.25	169.00	0.863
21. I felt disgusted by myself[i]	0.00	0.00-0.00	0.00	0.00-1.75	142.00	0.232
22. I felt as if I was far away from myself[i]	0.00	0.00-1.00	0.00	0.00-1.25	171.00	0.898
23. I felt worthless[i]	0.00	0.00-2.00	0.00	0.00-0.75	145.00	0.337

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For Items 2 and 6, the Valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.9 Service Context Differences in BPD Features

As presented in Table 13, no significant differences were observed in LPI subscales based on service context.

Table 13

Service Context Differences in BPD Features

	YPS (n = 35)		FLMHS (n = 10)				
LPI-Subscales	*M*	*SD*	*M*	*SD*	*t*	*p*	*d*
Confusion about Self	37.03	12.82	37.60	12.15	0.13	0.901	
Impulsivity	36.85	13.79	33.10	10.15	-0.80	0.430	
Interpersonal Chaos	38.48	13.70	44.20	10.72	1.21	0.231	
Emotional Dysregulation	39.78	15.07	38.00	14.02	-0.33	0.742	

4.10 Service Differences in Individual Items of the LPI

Given that no significant differences in LPI subscales were found according to service context, supplementary item-by-item analyses were conducted for each item of the LPI. Data were not normally distributed; therefore, Mann-Whitney *U* tests were used to analyze service context differences on each item. Bonferroni correction was not applied as analyses were exploratory. Significant differences are presented for each subscale in Tables 14 to 17.

4.10.1 Service Context Differences in Items of the Interpersonal Chaos Subscale

The supplementary analyses revealed that adolescents involved with FLMHS scored significantly higher on an internalizing feature pertaining to fear of an abandonment and an externalizing item concerning difficulties in interpersonal relationships. No other significant differences were observed as demonstrated in Table 14.

Table 14

Service Context Differences in Items of the Interpersonal Chaos Subscale

	YPS (n = 35)		FLMHS (n = 10)			
Items	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
4. I worry a lot about being left alone[i]	3.00	1.00-4.00	2.50	1.75-4.00	162.50	0.725
8. I often feel sad and unloved[i]	3.00	1.00-4.00	3.00	1.00-4.00	164.50	0.875
12. Relationships with people I care about have a lot of ups and downs[e]	3.00	2.00-5.00	3.50	2.00-5.00	166.00	0.789
16. I hate to spend time alone[i]	2.00	2.00-4.00	2.00	1.00-4.25	164.50	0.769
20. I will sometimes do almost anything to avoid feeling alone[i]	2.00	1.00-3.00	3.00	2.00-4.25	83.50	0.010*

Table 14 (continued)

Items	YPS (n = 35)		FLMHS (n = 10)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
23. When things don't go my way, I give up and feel hopeless[i]	2.00	1.00-3.00	2.50	1.00-4.00	146.50	0.418
28. I feel very nervous, angry, empty when I'm alone[i]	2.00	1.00-3.00	2.00	1.00-4.25	158.50	0.637
32. I often fear I will be abandoned by people I feel close to[i]	4.00	2.00-5.00	5.00	3.00-5.00	119.00	0.104
36. I often fear I will totally fall apart if someone important abandons or rejects me[i]	3.00	1.00-5.00	4.50	3.00-5.00	118.00	0.108
40. Many of my relationships have been full of intense arguments[e]	3.00	2.00-4.00	2.50	1.00-4.00	168.00	0.845
44. I have had lots of breakups with people I've been close to[e]	2.00	1.00-3.00	4.00	2.75-4.25	92.00	0.020*
48. In close relationships, I often think the other person is perfect sometimes, but I think they're terrible at other times[e]	1.00	1.00-3.00	1.00	1.00-3.50	163.00	0.825
52. My relationships with others are often very strong or intense, but they don't go that smoothly[e]	2.00	1.00-3.00	2.00	1.00-3.00	168.50	0.965
56. Sometimes I beg someone to try to stop them from leaving me [i]	1.00	1.00-3.00	1.50	1.00-4.25	143.50	0.337
60. I often don't get along with authority figures (such as parents or teachers)[e]	2.00	2.00-4.00	3.00	2.00-4.00	143.50	0.438

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For items 8, 48, 52, 60 the Valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.10.2 Service Context Differences in Items of the Confusion about Self Subscale

Table 15 displays the item-by-item analyses for the confusion about self subscale which revealed that the internalizing item regarding confusion of goals was significantly higher in the YPS context compared to the FLMHS context. No other significant differences emerged.

Table 15

Service Context Differences in Items of the Confusion about Self Subscale

	YPS (n = 35)		FLMHS (n = 10)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
1. I am not sure who I am or what I want in life [i]	2.00	1.00-4.00	1.00	1.00-4.00	129.00	0.194
5. I sometimes go into a daze and lose awareness of things going on around me [i]	3.00	2.00-4.00	3.00	2.00-4.25	164.00	0.758
9. I sometimes feel very unhappy with who I am [i]	2.00	1.00-3.00	3.50	2.00-4.25	115.50	0.095
13. Other kids my age seem surer than I am of who they are and what they want [i]	2.00	1.00-3.00	2.50	1.00-3.25	172.50	0.944
17. I feel lonely and empty most of the time [i]	3.00	1.00-3.00	2.00	1.00-3.25	168.00	0.843
21. I feel pretty lost and don't know where I am going in life [i]	2.00	1.00-3.00	1.00	1.00-3.25	147.00	0.422
25. I'm not that mature for my age, and I don't know what I want to do with my life [i]	1.00	1.00-2.00	1.00	1.00-3.00	172.50	0.940
29. I often feel empty or bored [i]	2.00	1.00-3.00	2.00	1.75-4.00	157.50	0.620

Table 15 (continued)

Item	YPS (n = 35)		FLMHS (n = 10)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
33. I often feel like I am not real, as if I'm physically separated from my feelings [i]	2.00	1.00-3.00	2.00	1.00-4.00	146.50	0.412
37. I'm so different at different times that I sometimes don't know who I really am [i]	2.00	1.00-4.00	2.50	1.75-3.50	143.50	0.371
41. I'm often confused about my goals [i]	3.00	2.00-4.00	2.00	1.00-3.00	105.50	0.049*
45. I often change my mind about the kind of friends I want [i]	1.00	1.00-3.00	1.00	1.00-3.00	167.00	0.807
49. I'm often not sure what I really believe in [i]	2.00	1.00-4.00	2.50	1.75-4.00	156.50	0.697
53. Sometimes it seems as if things around me are not real, as though I'm in a dream [i]	1.50	1.00-3.00	2.00	1.00-4.25	144.00	0.437
57. I often have trouble keeping my attention on what I need to do (like doing homework or solving a problem [i]	4.00	3.00-5.00	4.00	2.50-5.00	172.50	0.943

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For Item 49, the Valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.10.3 Service Context Differences in Items of the Emotional Dysregulation Subscale

In this item-by-item analyses, adolescents in the YPS context scored higher on an externalizing item pertaining to anger as seen in Table 16. No other significant differences were observed.

Table 16

Service Context Differences in Items of the Emotional Dysregulation Subscale

	YPS (n = 35)		FLMHS (n = 10)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
3. I sometimes get so upset that I want to hurt myself seriously [e]	1.00	1.00-4.00	3.00	1.00-4.25	154.00	0.530
7. Killing me may be the easiest way of solving my problems [i]	1.00	1.00-2.00	1.00	1.00-2.25	169.00	0.848
11. More and more I often think of ending my own life [i]	1.00	1.00-2.25	1.00	1.00-2.00	157.50	0.671
15. When I don't get my way, I quickly lose my temper [e]	3.00	2.00-4.00	3.50	1.00-4.25	153.50	0.636
19. Even little things get me really depressed [i]	2.00	1.00-4.00	3.50	1.00-5.00	139.00	0.305
23. When things don't go my way, I give up and feel hopeless [i]	3.00	1.00-4.00	2.00	1.00-4.00	159.00	0.655
27. Once I get upset, it takes me a long time to calm down [i]	3.00	2.00-4.00	3.00	1.00-5.00	169.00	0.866
31. I feel angry a lot of the time [e]	3.00	2.00-4.00	2.00	1.00-4.00	134.50	0.258

Table 16 (continued)

Item	YPS (n = 35)		FLMHS (n = 10)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
35. I often get furious at people [e]	2.00	1.00-4.00	2.50	1.75-3.25	174.50	0.989
39. I get into arguments very easily [e]	3.00	1.00-4.00	2.00	1.00-3.00	124.50	0.157
43. I often feel very anxious and worried about things [i]	4.00	2.00-5.00	4.00	2.75-5.00	164.50	0.767
47. I get very moody, where I change quickly from feeling OK to feeling really bad or angry [e]	3.00	2.00-5.00	4.00	2.75-5.00	133.50	0.290
51. Sometimes I get so angry that I lose control [e]	3.00	2.00-5.00	2.00	1.00-4.25	136.00	0.326
55. Even little things get me really angry [e]	2.00	2.00-4.00	2.50	1.00-5.00	168.00	0.845
59. I get so angry that I hit people or throw things [e]	2.00	1.00-3.00	1.00	1.00-1.00	80.00	0.004*

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For items 11,15, 27,5,the Valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.10.4 Service Context Differences in Items of the Impulsivity Subscale

These supplemental analyses revealed that adolescents involved with YPS were significantly higher on externalizing items pertaining to skipping school and damaging property. The FLMHS service scored significantly higher items regarding non-suicidal self-injury and suicide attempts. No other significant differences were revealed for this subscale (Table 17).

Table 17

Service Context Differences in Items of the Impulsivity Subscale

	YPS (n = 35)		FLMHS (n =10)			
Item	*Mdn*	*IQR*	*Mdn*	*IQR*	M-W	*p*
2. I usually act quickly, without thinking [e]	4.00	3.00-5.00	3.50	2.00-5.00	165.00	0.778
6. Sometimes I plan to go to class, but will change my mind if something better comes along [e]	2.00	1.00-3.00	1.00	1.00-1.00	85.00	0.005*
10. If I want to do something, I just do it without thinking of what might happen [e]	3.00	2.00-4.00	3.00	1.00-4.00	156.00	0.592
14. I often have too much to drink or get really drunk [e]	1.00	1.00-2.00	1.00	1.00-1.25	153.50	0.463
18. I often get high on street drugs like marijuana or other drugs [e]	1.00	1.00-4.00	1.00	1.00-1.25	129.50	0.160
22. I have deliberately hurt myself without meaning to kill myself [e]	1.00	1.00-4.00	4.50	2.75-5.00	88.00	0.012*
26. I have made at least one suicide attempt [e]	1.00	1.00-5.00	5.00	1.00-5.00	106.50	0.033*
30. I've eaten so much food that I was in a lot of pain or had to throw up [e]	1.00	1.00-2.00	1.00	1.00-2.50	166.50	0.765

Table 17 (continued)

Item	YPS (n = 35)		FLMHS (n =10)		M-W	*p*
	Mdn	*IQR*	*Mdn*	*IQR*		
34. I've spent money on things I didn't need or couldn't afford [e]	1.00	1.00-3.00	3.00	1.00-4.25	139.00	0.277
38. I've lost my temper and really yelled or screamed at someone [e]	3.00	2.00-4.00	2.00	1.00-3.50	137.50	0.295
42. I've threatened to physically hurt someone [e]	3.00	1.00-5.00	1.50	1.00-3.00	117.50	0.105
46. I've physically hurt or attacked someone [e]	2.00	1.00-4.00	1.00	1.00-2.00	108.00	0.051
50. I have damaged property [e]	2.50	1.00-4.00	1.00	1.00-2.00	90.50	0.019*
54. I've done something against the law [e]	2.00	1.00-3.00	1.00	1.00-2.00	120.00	0.131
58. I've had sex with people I hardly knew, or had unsafe sex [e]	1.00	1.00-4.00	1.00	1.00-3.00	139.50	0.285

Note. * $p<0.05$, *IQR* = Interquartile range; M-W = Mann-Whitney *U* test, For Items 13,14, the Valid N= 44. Internalizing items are followed by [i] symbol, and externalizing items are represented by [e] symbol.

4.10 Summary of Results

The analyses revealed no association between sex and symptom severity classification (low BPD group and high BPD group). However, girls had a significantly higher mean score on the measure of symptom severity. Exploratory analyses of individual items of the BSL-23 indicated that girls also scored significantly higher on many internalizing items, while boys did not obtain significantly higher scores on any internalizing or externalizing items of this measure. Regarding BPD features, girls scored significantly higher on interpersonal chaos. No other sex differences emerged on LPI subscales in their entirety. However, the analyses of items of the LPI showed that girls endorsed internalizing items relating to confusion about self, emotional dysregulation and externalizing items pertaining to non-suicidal self-injury and suicide. Boys scored significantly higher on physical aggression and damaging property. Girls and boys remained similar on many items of both subscales.

No differences were found in BPD symptom severity according to service context. Exploratory analyses of the BSL-23 also indicated no differences based on service context. However, group differences emerged regarding individual items of the LPI, such that several externalizing features were significantly higher among adolescents involved with YPS as they endorsed items pertaining to skipping school, damaging property, and displays of anger. However, non-suicidal self-injury and suicide attempts remained higher among the FLMHS group. The FLMHS group also scored higher on an internalizing item pertaining to fear of abandonment and one externalizing item pertaining to difficulties in interpersonal relationships. Groups were similar on many items across all subscales.

Chapter 5. Discussion

This research had four primary objectives: (1) to compare BPD symptom severity based on sex, (2) to analyze sex differences in BPD features, (3) to compare BPD symptom severity based on service context and (4) to analyze service context differences in BPD features. This section will provide a discussion in accordance with the results to the research questions presented above, whilst making connections to previous literature, theories associated with BPD, and considering methodological limitations that may have impacted results.

5.1 Comparisons of BPD Symptom Severity based on Sex

The first objective was to compare BPD symptom severity based on sex, utilizing the BSL- 23. Consistent with our hypothesis, results revealed a statistically significant higher mean score on the measure in adolescent girls, compared to boys. This was anticipated, as adolescent girls have been noted to be an especially high-risk group for BPD symptoms (Stepp et al., 2014), and higher mean scores on the measure are indicative of greater BPD symptomatology (Kleindienst et al., 2020). However, contrary to our hypothesis, the current study did not find a significant association between sex and BPD symptom severity group (high BPD symptom severity group vs. the low BPD symptom severity group). These results parallel the findings of Schäfer et al. (2016) who found no relationship between sex and problematic symptom severity (BSL-mean scores ranging from 2 to 4), yet found, as in our study, that girls scored significantly higher on the measure. Overall, the results from the present study, reiterate that while girls may on average present with higher BPD symptom severity, female sex in particular may not be associated with higher symptom severity.

However, the present study and previous research (Schäfer et al., 2016), are both limited by small sample sizes which may have not provided adequate power to detect an association between sex and higher BPD symptom severity. The examination of individual items of the BSL-23 provided further insights into sex differences in symptom severity. Adolescent girls scored significantly higher on numerous internalizing items relating to helplessness, loneliness, vulnerability, and mood dysregulation. These are all items which were not specifically associated with higher symptom severity by Kliendienst et al. (2020), which could explain why

no association between female sex and higher BPD symptom severity was found. Notably, girls also maintained significantly higher scores on items of self-hatred, self-disgust, and fascination with death, all items which were related to greater symptom severity in the severity classification study (Kleindienst et al., 2020). As noted by the authors, one factor that differentiates individuals with higher BPD symptom severity is their tendency for self-damaging behaviours rooted in self-contempt and hatred. Other research supports the distinguishing nature of self-hatred and disgust in girls with BPD symptomatology (Carreiras et al., 2020), such that these features have been consistently endorsed as reasons for self-harm (Greydanus & Shek, 2009; Klonsky & Muehlenkamp, 2007; Nilsson et al., 2022).

While girls in the present study did not report greater scores on self-harm items for the BSL-23, they reported significantly higher scores for these items on the LPI. Furthermore, our sample consisted primarily of youth who have experienced some form of childhood maltreatment. Recent research indicates that self-hatred mediates the relationship between childhood maltreatment (emotional abuse) and self-harm in girls (Nilsson et al., 2022). Overall these findings suggest that girls most likely present with greater symptom severity, however, the small sample size and recruitment of youth with subthreshold BPD, possibly limited our findings.

5.2 Differences in BPD Symptom Features According to Sex

Consistent with research in both adults and adolescents, it was hypothesized that adolescent girls would display greater confusion of self, interpersonal chaos, and emotional dysregulation, and that adolescent boys would display greater risk-taking impulsive behaviours (Bradley et al., 2005b; De Moor et al., 2009; Grant et al., 2008; Hoertel et al., 2014; Johnson et al., 2003; Zanarini et al., 2011). Our hypothesis was only partially confirmed, as results revealed that adolescent girls only displayed a significantly higher score on the interpersonal chaos subscale, compared to boys. The interpersonal chaos subscale of the LPI, primarily addresses challenging/conflicted relationships and fear of abandonment. Difficulties in interpersonal relationships have been described as an externalizing component of BPD, while fear of abandonment, as an internalizing criterion (Palihawadana et al., 2019; Speranza et al., 2012). Given that emotional dysregulation is at the core of BPD, the elevated interpersonal chaos score

in girls may partially reflect gender role theories of affect regulation, which posit that in response to negative emotions, women tend to engage in more self-directed behaviours (e.g. fear of abandonment) relative to men (Hoertel et al., 2014; Ingram et al., 1988; Zlotnick, 2002).

Risk factors for BPD may also play a role in the differential presentation of BPD symptoms (Skodol & Bender, 2003). Therefore, the significant difference on the interpersonal chaos subscale may also represent an expression of the type of trauma incurred and attachment style developed in childhood. Both interpersonal trauma and insecure attachment have been found to play an etiological role in the onset and manifestation of BPD symptoms (Kaehler & Freyd, 2012; Rogosch & Cicchetti, 2005). For instance, interpersonal difficulties in adults with BPD have been described as "oscillations of attachment" (Melges & Swartz, 1989, p. 1115) and have been suggested to extend from disrupted attachment in infancy in combination with interpersonal trauma (Minzenberg et al., 2006). A unique relationship exists between sex and trauma, such that various forms of trauma in men are predictive of BPD symptoms, whereas, interpersonal trauma in women, is uniquely predictive of BPD symptoms (Kaehler & Freyd, 2012). Therefore, in the present study, it is possible that type of trauma partially explains the sex difference in interpersonal chaos, as adolescent girls involved with YPS are disproportionately affected by interpersonal trauma (Fischer et al., 2016), and thus may display greater interpersonal difficulties.

The confusion about self, impulsivity, and emotional dysregulation subscales did not display significant sex differences in their entirety. There could be several reasons for this. Our study contained a relatively small sample and did not require the inclusion of adolescents with full-threshold BPD. Additionally, all of the participants implicated with YPS, were in out-home-care, and out-of-home placement has been associated with greater behavioural dysregulation (Esposito et al., 2013). This could be the reason no sex difference was found on the impulsivity subscale, as both girls and boys displayed higher scores on various items of the impulsivity subscale.

However, the examination of sex differences in individual items of each subscale revealed consistencies with previous research in adolescence and adulthood (Bradley et al., 2005b; De Moor et al., 2009; Grant et al., 2008; Hoertel et al., 2014; Johnson et al., 2003;

Zanarini et al., 2011). Girls displayed significantly higher scores on items pertaining to confusion about self, interpersonal chaos, and emotional regulation items. Furthermore, girls were significantly higher on items relating to non-suicidal self-injury, while boys were scored higher on several risk-taking impulsive behaviours (aggression toward others). This is congruent with prior research indicating that the externalizing criterion of BPD is also sex-specific, with girls endorsing more self-harm and suicide and boys endorsing more impulsivity (Hoertel et al., 2014). Overall, these findings also align with theories of affect regulation in youth with BPD symptomatology (Hoertel et al., 2014; Ingram et al., 1988; Zlotnick, 2002), with girls utilizing primarily self-directed behaviours to cope with negative affect and boys manifesting primarily risk-taking impulsive behaviours (e.g. aggression toward others and breaking objects). Overall, these results are also consistent with research outside of BPD, which suggests that women respond in an internal manner to their emotions (e.g., rumination) (Nolen-Hoeksema, 2012). Contrary to this, men have a greater tendency to engage in avoidance or suppression in response to their emotions (e.g., substance abuse) (Nolen-Hoeksema, 2012; Tamres et al., 2002). This is evident in the manifestation of internalizing disorders such as depression and anxiety which are more frequent among women and girls, and externalizing disorders such as substance abuse, oppositional defiant disorder, and attention deficit disorder which are more frequent among boys and men (Kovess-Masfety et al., 2021; Smith et al., 2018).

5.3 Comparisons of BPD Symptom Severity and Features based on Service Context

The last objectives were to analyze service context differences in BPD symptom severity and BPD features. Contrary to our hypotheses, the present study found no differences in BPD symptom severity and BPD features based on service context, except for a few individual items of the LPI. Analyses of individual items of the LPI revealed that adolescents involved with YPS endorsed several risk-taking impulsive behaviours such as skipping class and aggression toward others, and those involved with FLMHS endorsed several internalizing features. Behavioural problems and disorders commonly lead to YPS involvement (Burns et al., 2004), therefore, it is plausible that a greater number of adolescents had these externalizing behaviours in this context because they had been placed there for behavioural problems rather than personality pathology.

This could explain the higher endorsement of risk-taking impulsive behaviours in this group. While not statistically significant, a greater proportion of the adolescents involved with FLMHS were in the high symptom severity group. Altogether, these findings may suggest that behaviours directed toward the external world best differentiate BPD symptomatology within these service contexts, rather than the level of symptom severity. However, this suggestion must be interpreted with caution given that adolescents involved with FLMHS also endorsed several externalizing behaviours. Ultimately, more research is needed to explore differences in BPD symptomatology using disorder specific measures to provide a more accurate description of service contexts differences.

The overall paucity of significant findings in BPD symptom severity and features according to service context can be explained by several factors. Firstly, the lack of differences is potentially the result of living environment. Most of our sample consisted of adolescents in out-of-home care, and it has been posited that youth mental health may improve upon entry into out-of-home placement (Davidson-Arad, 2005; Davidson-Arad et al., 2003). For instance, one study found improved psychological health of youth placed in out-of-home care compared to those who remained in the family unit (Davidson-Arad et al., 2003). This may be accounted for by an increase in mental health service utilization upon YPS entry (Leslie et al., 2005), making it difficult to detect differences based on service context. Notably, adolescents involved with YPS in the present study, were all receiving mental health services. While they were not necessarily receiving BPD-specific services such as dialectical behavioural therapy, treatment as usual has been found to be associated with improvement in BPD symptomatology (Finch et al., 2019). The same theory is applicable to the youth receiving FLMHS, such that they may have experienced significant improvements in their mental health, even if the treatment received was not BPD-specific. These factors may have further complicated the detection of symptom severity and features between groups, as there may have been mental health improvements in both contexts.

5.4 Implications

Results from the present study must be interpreted with caution, given the small sample size, and henceforth, lack of generalizability to the general population of youth serviced by YPS and FLMHS. Despite this, our results reveal some implications that may guide early intervention and identification of adolescents with BPD symptoms, for clinicians and caseworkers within YPS and FLMHS contexts. The findings from this research are especially relevant for YPS caseworkers, given that they play the role of gateway providers, by identifying mental health problems and facilitating access to mental health services for children and adolescents (Stiffman et al., 2004).

Firstly, our results highlight certain sex and service context differences in BPD symptom severity and features, yet they also reveal several similarities between groups. The similarities regarding confusion about self, emotional dysregulation and certain items of interpersonal chaos are clinically relevant for early detection. While adolescent boys have been particularly known to manifest externalizing behaviours (Bradley et al., 2005b), these results implicate that they may also suffer from many internalizing symptoms. Thus emphasizing the need for clinicians within these contexts to pay greater attention to internalizing symptomatology in boys, as studies in adults with BPD have found that men are less likely to be identified and treated (Dehlbom et al., 2022). Our results also suggest that BPD symptom severity may be equally problematic based on service context. Ambulatory services in Australia provide specialized mental health services to youth with BPD such as stepped-care models of dialectical behavioural therapy (Government of South Australia, 2019). However, access to evidence-based treatment remains limited in Québec, particularly regarding hierarchized care based on the severity of BPD. This could explain why the FLMHS group did not differ from the YPS group regarding severity. Specialized treatments for BPD symptoms among youth such as dialectical behavioural therapy for adolescence may be useful in the FLMHS context.

Secondly, the interpersonal difficulties experienced by girls may complicate intervention, as a part of the interpersonal chaos subscale is alternation between idealization and devaluation of others (Rathus et al., 2015). It is plausible that adolescent girls' perception of their caseworker or therapist can shift rapidly (Herzog et al., 2022). Therefore, it may be best

practice to approach intervention or treatment by focusing on interpersonal skills and for clinicians in these contexts to pay special attention to the way they interact and engage with these adolescents. Furthermore, our findings revealed that adolescent girls scored significantly higher not only on interpersonal chaos, but also on items of the confusion about self subscale. Aside from emotional dysregulation, interpersonal difficulties have been identified as a main reason that individuals with BPD symptoms engage in non-suicidal self-injury (Sadeh et al., 2014). In connection with this, Muehlenkamp et al. (2011) found that interpersonal chaos was strongly associated with non-suicidal self-injury and confusion about self was linked to suicide attempts. The early identification of these BPD features and the utilization of treatments that target interpersonal difficulties and confusion about self such as adolescent dialectical behaviour therapy may impact or prevent the onset of suicidal and self-injurious behaviours (Muehlenkamp et al., 2011).

5.5 Strengths and Limitations

The primary strength of this study is that it is the first study to assess and compare individual differences in BPD symptomatology among adolescents involved with YPS and FLMHS using disorder specific measures. Furthermore, our study contained a relatively equal number of girls and boys. Whereas much of the research using disorder-specific measures within these service contexts has primarily focused on women/mothers (Laporte et al., 2018; Perepletchikova et al., 2012) and only one study has looked at both sexes in adolescents (Schäfer et al., 2016).

There are, however, several limitations to this study. First, the small sample size, limits the generalizability of the results, such that they may not represent the larger population of adolescents being serviced by YPS and FLMHS in Quebec. Secondly, our sample consisted mainly of adolescents involved with YPS. Therefore, it is possible that girls presented with greater externalizing symptoms compared to other studies. In connection to this, most of the FLMHS group was composed of girls. Both factors may have served as limitations with regard to the generalizability of our findings. Thirdly, the measures used were designed for individuals with full-threshold BPD. The recruitment of individuals with full-threshold BPD would have potentially provided a more accurate clinical picture of group differences. However, it is worth noting that subthreshold BPD, is also linked to significant impairment and should also be considered clinically significant (Kaess et al., 2017; Thompson et al., 2019c). Fourthly, since the present study consisted of a secondary data analysis, the author was not involved in the conception of the original TANGO project and there are several caveats ot this in relation to the present research. For example, the exclusion of specific variables (e.g., duration of service utilization which may have impacted manifestation of symptoms), variables categorized or defined in a way out of the present author's control, and not being able to pose specific research questions as data was limited (University College London, 2023). Fifth, the service context variable contained groups with unequal sample sizes, with YPS (n=35), and FLMHS (n=10), which may have impacted impacted statistical power and chances of Type 1 error (Rusticus & Lovato, 2014). Sixth, given that the questionnaires were self-report and that many questions were sensitive in nature, this research was also prone to social-desirability bias (Krumpal, 2013), which may have modified the results. Seventh, referral bias could have impacted our results.

For instance, caseworkers may have been more likely to refer adolescents with better mental health, for them to be deemed "well enough" to participate in the study. As such, our sample might have included youth with less severe symptomatology. Considering that research has consistently demonstrated a link between YPS involvement/childhood maltreatment and externalizing behaviours associated with BPD (Berger et al., 2009; Esposito et al., 2013), and greater BPD symptom severity (Zanarini et al., 2002), the small sample size most likely impacted results. Lastly, the measures used in the present study were derived from *DSM* criteria, and it is plausible that the above-mentioned biases associated with sex differences in BPD research such as biased diagnostic constructs, may have also impacted the results and their interpretation.

Chapter 6. Conclusion and Future Directions

Despite these limitations, this study provides initial insights into BPD symptom severity and features among adolescents aged 14 to 17 years old receiving services from YPS and FLMHS in Quebec. In terms of sex differences, the analyses revealed that adolescent girls displayed on average, greater symptom severity and greater interpersonal difficulties, compared to adolescent boys. The analyses of individual features also revealed that girls displayed several internalizing behaviours and boys displayed multiple externalizing characteristics. Overall few differences and associations were observed in BPD features or symptom severity based on service context. Exploratory analyses of individual items of the LPI, showed that youth involved with YPS endorsed several externalizing behaviours, and youth involved with FLMHS endorsed many internalizing behaviours.

The significant sex differences in this study contribute to our understanding of BPD in adolescence and replicate previous findings on symptom severity and features among adolescents and children (Bradley et al., 2005b; Schäfer et al., 2016; Zanarini et al., 2011). The current study also contrasts previous research that has predominantly found externalizing characteristics to be affiliated with YPS, especially out-of-home placement (Esposito et al., 2013). Ultimately, this research serves as a preliminary investigation. Recommendations for future studies include the utilization of a larger sample, the incorporation of other variables (e.g., duration of service utilization, treatment history, psychosocial impairment) and the inclusion of youth with full-threshold BPD. All of which may have impacted results in this study and may provide greater insight for future research. Furthermore, more research on sex differences in the manifestation of symptoms is imperative to tailor treatment to address sex-specific features (Hoertel et al., 2014; Sansone & Sansone, 2011). The investigation of service context differences is also important when considering a stepped-care approach to BPD, which is a treatment method that starts with the least intensive therapy approach and adjusts according to patient needs. Simpler treatment interventions are often employed in first-line settings (National Health and Medical Research Council, 2012). However, our study has demonstrated no differences in BPD severity and symptoms based on service context, thus demonstrating that therapy needs might not vary per setting. Ultimately, more research is needed with larger sample sizes among these contexts.

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Appendix 1. BPD Symptoms

***DSM-5* Diagnostic Criteria for BPD**
Frantic efforts to avoid real or imagined abandonment.
A pattern of unstable or intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
Identity Disturbance: markedly persistent and unstable sense of self.
Impulsivity in at least two potentially self-damaging areas e.g., substance abuse, sex, binge eating, reckless driving (**Does not** include suicidal or self-harming behaviours).
Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behaviour.
Affective instability due to marked reactivity of mood.
Chronic feelings of emptiness.
Inappropriate, intense anger or difficulty controlling anger.
Transient stress-related paranoid ideation or severe dissociative symptoms.

Appendix 2. Consent Form

FORMULAIRE D'INFORMATION ET DE CONSENTEMENT (CJM-IU)

Une technologie d'intervention adaptée pour adolescents
avec symptômes de trouble de personnalité limite en Centre jeunesse

Chercheure responsable: Lyne Desrosiers, PhD : Département d'ergothérapie de l'UQTR et chercheur universitaire régulier au Centre de recherche et d'expertise-Jeunes en difficulté du CIUSSS du Centre-Sud-de-l'Île-de-Montréal.

Co-chercheurs : **Lise Laporte**, PhD : chercheure, Centre de recherche et d'expertise-Jeunes en difficulté du CIUSSS du Centre-Sud-de-l'Île-de-Montréal

Christophe Huỳnh, PhD : chercheur, Centre de réadaptation en dépendance de Montréal – Institut universitaire du Centre intégré universitaire de santé et de services sociaux du Centre-Sud-de-l'Île-de-Montréal

Pierre-Yves Therriault, PhD : chercheur psychodynamicien du travail et directeur du Laboratoire en ergologie, Université du Québec à Trois-Rivières.

Organisme subventionnaire : Fonds Institutionnel de Recherche – Universités du Québec, Université du Québec à Trois-Rivières, CIUSSS Mauricie et Centre du Québec, Centre de recherche et d'expertise Jeunes en difficulté

Bonjour,

Votre adolescent(e) est invité(e) à participer à un projet de recherche. Il est important de bien lire et comprendre le présent formulaire d'information et de consentement. Il se peut que cette lettre contienne des mots ou des expressions que vous ne compreniez pas ou que vous ayez des questions. Si c'est le cas, n'hésitez pas à nous en faire part. Prenez tout le temps nécessaire pour vous décider.

1) En quoi consiste cette recherche?

Ce projet de recherche vise à évaluer les effets et les bénéfices des interventions reçues par les adolescents pendant leur hébergement en centre jeunesse. Nous nous intéressons plus particulièrement aux changements sur l'état psychologique des adolescents, et sur leur fonctionnement dans les activités de tous les jours. Pour se faire, les chercheurs évalueront ces éléments à partir de questionnaires complétés par les adolescents à deux reprises soit au début de l'étude et une deuxième fois six mois plus tard. Nous souhaitons également comprendre comment les adolescents vivent leur expérience de réadaptation en hébergement et comment ils perçoivent leur engagement vis-à-vis l'aide offerte en centre jeunesse ou dans les services de santé mentale lorsqu'ils en bénéficient. Les informations pour ce deuxième volet de l'étude seront obtenues par le biais d'entrevues avec les adolescents. Cette recherche

permettra d'améliorer les interventions offertes aux adolescents pendant leur séjour en hébergement, leur participation à leur suivi en centre jeunesse et à leur traitement en santé mentale lorsque ceux-ci en bénéficient.

2) Si mon adolescent s'implique dans cette recherche, que sera-t-il concrètement attendu de lui ou d'elle?

1. Rencontre individuelle #1
   Il (elle) répondra à des questionnaires portant sur son état psychologique et son fonctionnement dans les activités quotidiennes. Cette rencontre durera environ 40 minutes.

   Pour ce faire, un rendez-vous sera fixé en fonction de son horaire et la rencontre se déroulera dans une salle de son unité prévue à cet effet.

2. Rencontre individuelle #2
   Il ou elle répondra aux mêmes questionnaires que lors la rencontre individuelle #1, environ 6 mois plus tard. Cette rencontre durera environ 40 minutes.

3. Entrevue #1 et #2
   Si votre adolescent(e) a déjà visité une urgence en raison de crises de colères, agressivité envers autrui, automutilation, propos, menaces ou tentatives suicidaires ou intoxication et que vous et votre adolescent êtes d'accord, il ou elle pourrait participer à une entrevue d'environ 60 minutes au début de l'étude et à une autre environ six mois plus tard. Ces entrevues visent à mieux comprendre comment les adolescents vivent leurs expériences avec les services de santé mentale. Elles se dérouleront dans une salle de l'unité prévue à cet effet et seront enregistrées sur bande audio.

4. Validation
   Après l'analyse de ces données, il est possible que votre adolescent soit sollicité pour participer à un exercice de validation des analyses, afin de s'assurer que nous avons bien compris son point de vue lors des entrevues. Deux adolescent(e)s choisi(e)s au hasard (par pige) seront sollicité(e)s. Il ou elle pourra toujours refuser de participer à cette partie du projet de recherche La pige se poursuivra jusqu'à ce que 2 adolescent(e)s aient accepté de participer.
   Durée : environ une heure.
5. Accès au dossier du centre jeunesse de votre adolescent(e)
   La participation à ce projet implique l'accès au dossier centre jeunesse de votre adolescent(e) afin de recueillir des données démographiques et cliniques (suivi au centre jeunesse, diagnostic et suivi en santé mentale)

3) Y aura-t-il des avantages à participer à cette recherche?

Vous comme parent, et toi comme adolescent(e) ne retirerez aucun avantage direct lié à la participation à ce projet de recherche. Cependant, ta participation aidera à mieux comprendre les besoins des adolescent(e)s en unité d'hébergement et à cerner les effets des interventions sur leur évolution. En participant aux entrevues de l'étude, tu auras aussi l'opportunité d'exprimer ton point de vue sur les services reçus et tu contribueras à améliorer les interventions pour aider les jeunes en centre jeunesse.

4) La participation mon adolescent(e) à cette recherche entraînera-t-elle des risques ou des inconvénients pour lui ou elle?

Il y a peu de risques liés à la participation de votre adolescent(e) à ce projet de recherche. Toutefois, il se peut que les questions posées l'amènent à ressentir des émotions désagréables. Son état émotif sera pris en compte afin de respecter son rythme. Advenant un changement significatif de son état psychologique, l'assistante de recherche cessera la rencontre et informera l'éducateur responsable. Celui-ci veillera à mettre en place l'intervention appropriée à la situation.

Lorsque ce dernier le jugera approprié, il vérifiera auprès de l'adolescent(e) s'il ou elle souhaite maintenir sa participation au projet de recherche. Dans l'affirmative, il en informera le chercheur principal et un nouveau rendez-vous sera prévu pour terminer la collecte de données (questionnaire ou entrevue). Dans le cas contraire, sa participation à la recherche sera terminée.

Advenant que votre adolescent(e) dévoile des idées suicidaires ou des informations cliniques nouvelles, l'assistant de recherche en informera son éducateur qui prendra les mesures nécessaires pour assurer une prise en charge adéquate.

5) Est-ce que les renseignements que qu'il ou elle donnera seront confidentiels?

Tous les renseignements recueillis seront traités de manière confidentielle dans les limites prévues par la Loi.

Aucun nom n'apparaitra sur les questionnaires ou les transcriptions d'entrevue. Chaque adolescent(e) recevra un numéro de code et c'est celui-ci qui sera associé aux données des questionnaires et aux entrevues. Seule la chercheure principale aura accès à la liste de correspondance. Les renseignements, les données des questionnaires ainsi que les enregistrements audio seront conservés sous forme de fichiers électroniques protégés par un mot de passe et connu seulement de la chercheure principale et sur une clé USB, également protégée par un mot de passe. Celle-ci sera entreposée dans un classeur sous clé situé dans le bureau fermé de la chercheure principale. Aucune information permettant d'identifier les adolescents(e)s faisant partie de cette recherche ne sera publiée. Ces renseignements seront détruits 5 ans après la fin du projet de recherche.

De plus, tous les membres de l'équipe de recherche doivent signer un formulaire d'engagement à la confidentialité, c'est-à-dire qu'ils s'engagent à ne divulguer les données recueillies à personne.

Cependant, si votre jeune dévoile une situation qui compromet sa sécurité ou celle d'une autre personne, les membres de l'équipe de recherche informeront les responsables de son unité afin qu'il ou elle puisse recevoir de l'aide.

Lors de la diffusion des résultats (article, rapport), aucune information permettant d'identifier votre adolescent(e) ne sera publiée. Il est possible que nous devions permettre l'accès aux dossiers de recherche au comité d'éthique de la recherche ayant autorisé le projet et aux organismes subventionnaires de la recherche à des fins de vérification ou de gestion de la recherche. Tous adhèrent aussi à une politique de stricte confidentialité.

6) Est-ce que les renseignements que qu'il ou elle donnera seront utilisés pour d'autres recherches?

Avec votre permission, il se peut que les renseignements que vous fournirez soient utilisés, avant la date prévue de destruction, dans le cadre de quelques projets de recherche qui porteront sur les différentes facettes du thème pour lequel vous être approché aujourd'hui. Ces projets éventuels seront sous la responsabilité du chercheur principal et seront autorisés par un Comité d'éthique de la recherche. L'équipe de recherche s'engage à maintenir et à protéger la confidentialité de vos données aux mêmes conditions que pour le présent projet.

7) Est-ce que moi et mon adolescent(e) pourrons connaître les résultats de la recherche?

Vous ne pourrez pas obtenir les résultats individuels de votre adolescent(e)s. Par contre, si vous souhaitez obtenir un résumé écrit des résultats généraux de la recherche, vous pouvez indiquer une adresse où nous pourrons vous le faire parvenir dans la section « consentement à la recherche » du présent document.

8) Est-ce que mon adolescent(e) recevra une compensation pour sa participation à la recherche?

Votre adolescent(e) recevra un chèque cadeau de 10$ pour chacune de ses participations (questionnaires et entrevues) en compensation des contraintes liées à sa participation à ce projet de recherche. Il pourrait recevoir jusqu'à 50$ s'il participe à toutes les activités de cette recherche.

9) Est-ce que mon adolescent(e) est obligé(e) de participer à la recherche ou d'y participer jusqu'à la fin?

Vous êtes libre de refuser que votre adolescent(e) participe à la recherche, sans que vous ayez besoin de vous justifier, et sans que cela nuise à vos relations ou celles de votre adolescent(e) avec les intervenants et autres professionnels impliqués au Centre jeunesse. Votre décision qu'il ou elle participe ou ne participe pas ne sera d'ailleurs pas mentionnée dans son dossier au Centre jeunesse.

De plus, même si vous acceptez qu'il ou elle participe, votre adolescent(e) pourra se retirer de la recherche en tout temps sur simple avis verbal, sans explication et sans que cela ne lui cause un quelconque tort. Le cas échéant, si vous en manifestez le souhait, toutes les données le concernant seront détruites et ne seront pas incluses dans les analyses.

Les chercheurs pourraient eux aussi décider d'interrompre sa participation ou d'arrêter la recherche s'ils pensent notamment que c'est dans son intérêt.

10) Si nous avons besoin de plus d'information avant de nous décider ou tout au long de la recherche, qui pourrons-nous contacter?

Si vous avez des questions concernant cette recherche, vous pouvez contacter la chercheure principale, Lyne Desrosiers, au numéro de téléphone (514) 896-3582.

Si vous souhaitez vous renseigner sur vos droits ou pour formuler toute plainte, vous pouvez contacter le commissaire local aux plaintes et à la qualité des services du _____Centre jeunesse de Montréal-Institut universitaire au numéro suivant : (514) 593-3600

Consentement verbal à la recherche du parent (représentant légal)

Je comprends le contenu de ce formulaire et je consens à la participation de mon adolescent(e) à cette recherche sans contrainte ni pression. J'ai eu le temps nécessaire pour prendre ma décision. J'ai pu poser toutes mes questions et j'ai obtenu des réponses satisfaisantes.

Je comprends aussi que je ne renonce pas à mes droits et je ne libère ni les chercheurs, ni l'établissement de leur responsabilité civile ou professionnelle.

Je recevrai une copie signée et datée de ce formulaire d'information et de consentement.

J'accepte que mon adolescent(e) participe au volet de l'étude qui requiert de remplir des questionnaires à deux reprises.

Oui ☐ Non ☐

J'accepte que mon adolescent(e) participe au volet de l'étude qui comporte deux entrevues.

Oui ☐ Non ☐

J'accepte que les renseignements fournis par mon adolescent(e) soient utilisés dans le cadre de projets de recherche ultérieurs visant à approfondir les différentes facettes du thème de la présente recherche.

Oui ☐ Non ☐

Je désire recevoir un rapport des résultats de la recherche.

Oui ☐ Non ☐

Si oui, faire parvenir à l'adresse:_____

Nom du parent qui a consenti verbalement : _____

Nom, rôle dans le projet de recherche et signature de la personne qui a obtenu le consentement:_____

_____

Date de l'obtention du consentement :_____

<u>À remplir par l'adolescent(e) :</u>

J'ai lu et compris le contenu du présent formulaire. Je certifie qu'on me l'a expliqué verbalement. J'ai eu l'occasion de poser toutes mes questions et on y a répondu à ma satisfaction. J'en comprends les avantages et les inconvénients. Je sais que je suis libre de participer au projet et que je demeure libre de m'en retirer en tout temps, par avis verbal, sans que cela n'affecte la qualité des interventions futures et des rapports avec mes intervenants ou le centre jeunesse.

Je comprends aussi qu'en signant ce formulaire, je ne renonce pas à mes droits et je ne libère ni les chercheurs, ni l'établissement de leur responsabilité civile ou professionnelle.

Je soussigné(e)_____ accepte volontairement de participer à cette recherche.

J'accepte de participer au volet de l'étude qui requiert de remplir des questionnaires à deux reprises.

Oui ☐ Non ☐

J'accepte de participer au volet de l'étude qui comporte deux entrevues.

Oui ☐ Non ☐

J'accepte que les renseignements que je fournis soient utilisés dans le cadre de projets de recherche ultérieurs visant à approfondir les différentes facettes du thème de la présente recherche.

Oui ☐ Non ☐

Je désire recevoir un rapport des résultats de la recherche.

Oui ☐ Non ☐

Si oui, faire parvenir à l'adresse:_____

_____	_____	_____
Adolescent	Signature	Date

Déclaration du chercheur : Je certifie avoir expliqué au participant et à son représentant légal la nature de la recherche ainsi que le contenu de ce formulaire et leur avoir clairement indiqué qu'ils restent à tout moment libre de mettre un terme à sa participation au projet. Je leur remettrai une copie signée du présent formulaire.

_____	_____	_____
Personne ayant obtenu le consentement	Signature	Date
_____	_____	_____
Chercheur principal	Signature	Date

- L'original du formulaire sera conservé dans le bureau de la chercheure principale (1001 boul. de Maisonneuve Est, Montréal, Québec, H2L 4R5)
- Le projet de recherche et le présent formulaire de consentement ont été approuvés par le CER Jeunes en difficulté du CIUSSS Centre-Sud de l'île-de-Montréal le 29 septembre 2016. À titre de CÉR évaluateur, il assurera le suivi.
- Numéro de dossier : MP-CJM-IU—16-16

Date de la version du présent formulaire : 24 octobre 2016

Appendix 3. Questionnaires

Projet TANGO

Questionnaire adolescent T0 (Version française)

*Obligatoire

1. Adresse e-mail *

_____

2. Âge *

Une seule réponse possible.

- 13
- 14
- 15
- 16
- 17
- 18

3. Sexe à la naissance *

Une seule réponse possible.

- ◯ Fille
- ◯ Garçon

4. Genre auquel je m'identifie *

Une seule réponse possible.

- ◯ Fille
- ◯ Garçon
- ◯ Autre

5. Groupe auquel je m'identifie *

Une seule réponse possible.

- ◯ Canadien
- ◯ Minorité invisible
- ◯ Minorité visible

6. Ma famille est: *

Une seule réponse possible.

- ◯ Biparentale (Mes deux parents sont ensemble)
- ◯ Monoparentale (mère)
- ◯ Monoparentale (père)
- ◯ Recomposée (avec ma mère)
- ◯ Recomposée (avec père)
- ◯ Rôle parental assumé par famille élargie (grand-parent, tante, oncle...)
- ◯ Famille d'accueil
- ◯ Autre

7. Je vis actuellement *

Une seule réponse possible.

- ◯ À la maison avec ma famille
- ◯ Dans une famille d'accueil
- ◯ Dans un foyer de groupe
- ◯ Dans une unité d'hébergement en centre jeunesse

Dans la liste ci-dessous, tu vas retrouver des problèmes que les adolescents vivent parfois. Lis chaque phrase et inscris le chiffre qui décrit comment tu te sens la PLUPART DU TEMPS.

1= Pas du tout comme moi
2= Un petit peu comme moi
3= Un peu comme moi
4= Assez comme moi
5= Exactement comme moi

8. Q1. Je ne suis pas sûr(e) de qui je suis ou de ce que je veux faire dans la vie. *

Une seule réponse possible.

- 1.Pas du tout comme moi
- 2. Un petit peu comme moi
- 3. Un peu comme moi
- 4. Assez comme moi
- 5. Exactement comme moi

9. Q2. J'ai tendance à agir rapidement, sans penser. *

Une seule réponse possible.

- Pas du tout comme moi
- Un petit peu comme moi
- Un peu comme moi
- Assez comme moi
- Exactement comme moi

10. Q3. Parfois, je suis tellement en colère que je veux vraiment me faire du mal. *

Une seule réponse possible.

- Pas du tout comme moi
- Un petit peu comme moi
- Un peu comme moi
- Assez comme moi
- Exactement comme moi

11. Q4. Je suis souvent inquiet(e) de rester seul(e). *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

12. Q5. Parfois, je suis distrait(e) et je n'ai plus conscience des choses qui se produisent autour de moi. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

13. Q6. Parfois quand je veux aller en classe, je change d'idée quand j'ai mieux à faire *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

14. Q7. Me tuer peut être la meilleure façon de régler mes problèmes *

Une seule réponse possible.

- Pas du tout comme moi
- Un petit peu comme moi
- Un peu comme moi
- Assez comme moi
- Exactement comme moi

15. Q8. Je me sens souvent triste et mal aimé(e). *

Une seule réponse possible.

- Pas du tout comme moi
- Un petit peu comme moi
- Un peu comme moi
- Assez comme moi
- Exactement comme moi

16. Q9. Parfois je ne suis pas heureux(se) de qui je suis. *

Une seule réponse possible.

- Pas du tout comme moi
- Un petit peu comme moi
- Un peu comme moi
- Assez comme moi
- Exactement comme moi

17. Q.10 Si je veux faire quelque chose, je le fais sans penser à ce qui peut arriver. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

18. Q.11 Je pense de plus en plus à mettre fin à mes jours. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

19. Q.12 Les relations avec ceux que j'aime ont beaucoup de haut et de bas. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

20. Q.13 Les autres jeunes de mon âge semblent plus sûr(e)s de ce qu'ils sont et de ce qu'ils veulent. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

21. Q.14 Je prends souvent trop d'alcool ou je me soûle souvent *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

22. Q.15 Quand je n'obtiens pas ce que je veux, je deviens rapidement en colère. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

23. Q.16 Je déteste passer du temps seul. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

24. Q.17 Je me sens seul(e) et vide la plupart du temps *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

25. Q.18 Je me gèle souvent avec de la marijuana ou d'autres drogues. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

26. Q.19 Même des petites choses me rendent vraiment déprimé(e). *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

27. Q.20 Parfois je pourrais faire presque n'importe quoi pour éviter de rester seul(e). *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

28. Q. 21 Je me sens vraiment perdu(e) et je ne sais pas où je m'en vais dans la vie. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

29. Q.22 Je me suis déjà fait mal délibérément sans vouloir me tuer (comme me couper ou me griffer) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

30. Q.23 Quand les choses ne vont pas comme je le veux, j'abandonne et je me sens impuissant(e) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

31. Q.24 Je me sens très déprimé(e) quand je suis seul(e). *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

32. Q.25 Je ne suis pas mature pour mon âge et je ne sais pas ce que je veux dans la vie *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

33. Q.26 J'ai fait au moins une tentative de suicide. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

34. Q.27 Quand je suis fâché(e), ça me prend beaucoup de temps pour me calmer. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

35. Q.28 Quand je suis seul(e), je me sens très nerveux(se), en colère et vide *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

36. Q.29 Je m'ennuie(e) ou me sens vide. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

37. Q.30 Il m'arrive de manger tellement de nourriture que j'en ai mal ou que je dois vomir *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

38. Q.31 Je suis souvent en colère. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

39. Q.32 J'ai souvent peur d'être abandonné(e) par les personnes proches de moi *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

40. Q.33 J'ai souvent l'impression de ne pas être réel(le), comme si j'étais séparé(e) de mes émotions *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

41. Q.34 J'ai dépensé de l'argent sur des choses dont je n'avais pas besoin ou que je ne pouvais pas me permettre. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

42. Q.35 Je suis souvent furieux(se) contre les gens. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

43. Q.36 J'ai souvent peur de m'écrouler complètement si quelqu'un d'important pour moi me rejette ou m'abandonne *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

44. Q.37 Je suis tellement différent(e) d'un moment à l'autre que parfois je ne sais pas qui je suis vraiment *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

45. Q.38 J'ai perdu mon calme et j'ai vraiment engueulé ou crié après quelqu'un *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

46. Q.39 Je m'engueule très facilement. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

47. Q.40 Plusieurs de mes relations ont été pleines de disputes intenses. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

48. Q.41 Je suis souvent confus(e) à propos de mes buts. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

49. Q.42 J'ai menacé quelqu'un physiquement (comme menacer de frapper ou de donner un coup de poing) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

50. Q.43 Je suis souvent très inquiet(e) et préoccupé(e) à propos des choses. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

51. Q.44 J'ai eu beaucoup de ruptures avec les personnes qui ont été proches de moi *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

52. Q.45 Je change souvent d'idée sur le genre d'ami(e) que je veux. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

53. Q.46 J'ai physiquement attaqué ou blessé quelqu'un (comme donner une claque, un coup de poing ou être dans une bagarre). *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

54. Q.47 J'ai l'humeur changeante, je passe rapidement de "correct" à me sentir mal ou en colère *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

55. Q.48 Dans mes relations intimes, je pense souvent que l'autre personne est parfaite, mais je pense aussi à d'autres moments que cette personne est minable *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

56. Q.49 Souvent, je ne suis pas certain(e) de ce en quoi je crois réellement. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

57. Q.50 J'ai endommagé des objets (comme casser de la vaisselle ou briser des choses) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

58. Q.51 Parfois, je suis tellement en colère que je perds le contrôle. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

59. Q.52 Mes relations avec les autres sont souvent intenses ou très fortes, mais elle ne se déroule pas en douceur *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

60. Q. 53 Parfois, les choses autour de moi semblent irréelles, comme si j'étais dans un rêve. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

61. Q. 54 J'ai fait quelque chose contre la loi (comme du vol à l'étalage, vendre des drogues, etc.) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

62. Q.55 Même des petites choses me rendent vraiment en colère. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

63. Q. 56 Parfois pour éviter que quelqu'un me quitte, je les supplie de ne pas me quitter *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

64. Q.57 J'ai parfois de la difficulté à garder mon attention sur ce que je dois faire (comme les devoirs ou résoudre un problème) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

65. Q.58 J'ai eu des relations sexuelles avec des personnes que je ne connaissais presque pas ou j'ai eu des relations sexuelles non protégées. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

66. Q.59 Je deviens tellement en colère que je frappe les gens ou lance des choses. *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

67. Q.60 J'ai souvent de la difficulté à m'entendre avec des figures d'autorité (comme les parents ou les professeurs) *

Une seule réponse possible.

- ◯ Pas du tout comme moi
- ◯ Un petit peu comme moi
- ◯ Un peu comme moi
- ◯ Assez comme moi
- ◯ Exactement comme moi

Tu trouveras ci-dessous une série de difficultés et de problèmes qui s'appliquent possiblement à toi. Lis bien chaque énoncé et indique à quel point tu as souffert de chaque problème au cours de la DERNIÈRE SEMAINE. Si tu ne ressens rien du tout en ce moment, réponds comme tu penses que tu te serais senti. N'indique pas la réponse qui pourrait faire la meilleure impression, mais réponds plutôt celle qui te concerne personnellement. Les questions se rapportent à l'ensemble du déroulement de la semaine dernière.

0= Pas du tout
1= Un peu
2= Plutôt
3= Beaucoup
4= Très fortement

AU COURS DE LA DERNIÈRE SEMAINE...

68. Q1. C'était difficile pour moi de me concentrer *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

69. Q2. Je me sentais sans défense *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

70. Q3. J'étais très distrait(e) et incapable de me rappeler ce que je faisais exactement *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

71. Q4. Je ressentais du dégoût *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

72. Q5. Je pensais à me faire mal *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

73. Q6. Je ne faisais pas confiance aux autres *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

74. Q7. Je croyais que je n'avais pas le droit de vivre *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

75. Q8. Je me sentais seul(e) *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

76. Q9. Je vivais une tension intérieure stressante *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

77. Q.10 J'avais des images mentales qui m'effrayaient beaucoup *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

78. Q.11 Je me détestais *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

79. Q.12 J'avais envie de me punir *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

80. Q.13 J'ai eu honte que les autres me voient tel que je suis *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

81. Q.14 Mon humeur variait rapidement entre la peur, la colère et de la dépression *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

82. Q.15 J'ai été dérangé(e) par des voix des bruits qui provenaient de l'intérieur ou de l'extérieur de moi *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

83. Q.16 La critique avait sur moi un effet dévastateur *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

84. Q.17 Je me sentais légèrement vulnérable *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

85. Q.18 L'idée de la mort exerçait sur moi une certaine fascination *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

86. Q.19 Tout me paraissait n'avoir aucun sens *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

87. Q.20 J'ai eu peur de perdre le contrôle *

Une seule réponse possible.

- Pas du tout
- Un peu
- Plutôt
- Beaucoup
- Très fortement

88. Q.21 Je me sentais dégouté(e) de moi-même *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

89. Q.22 Je me sentais comme si j'étais loin de moi-même *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement

90. Q.23 Je me sentais sans valeur *

Une seule réponse possible.

- ◯ Pas du tout
- ◯ Un peu
- ◯ Plutôt
- ◯ Beaucoup
- ◯ Très fortement