Therapeutic Engagement with Adolescents with Emotional and Behavioural Disorders

by

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ABSTRACT

Therapeutic Engagement with Adolescents with Emotional and Behavioural Disorders

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The purpose of this study was to explore the degree and quality of youth engagement in the therapeutic process, as well as the factors associated with engagement in a sample of youth with an emotional and/or behaviour disorder (EBD) in residential and day treatment programs based in Southern Ontario. Cross-sectional surveys of standardized measures were administered to youth and a separate survey to their Prime Workers. Relevant constructs included client engagement (as rated by youth and Prime Workers), and youth-rated behavioural screen, family functioning, and interpersonal problems. Both Prime Workers and youth rated youth as moderate in their level of engagement in therapy. Furthermore, Prime Worker and youth ratings did not significantly differ, suggesting that youth may have actually engaged at a moderate level. Surprisingly, significantly more day treatment youth reported having mental health diagnoses than residential treatment youth, and residential treatment youth reported low scores in conduct and hyperactivity problems. Interpersonal problems were shown to be negatively associated with youth engagement, and family functioning was approaching significance after controlling for the aforementioned differences in residential and day treatment youth. Clinicians may benefit from youth engagement evaluations in practice. In future research, consideration of sociodemographic variables, resiliency promoting factors, and emotion regulation is recommended.
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Chapter One: Emotional and Behavioural Disorders

1.1 Definition

In 1987, the term “emotional or behavioural disorders (EBD)” was adopted by the National Mental Health and Special Education Coalition to refer to youth who exhibit pathological behaviour or emotions that may significantly impair their day-to-day functioning (Kauffman, 1993). Youth with EBD typically experience an inability to build or maintain interpersonal relationships and may exhibit aggressive or disruptive behaviours, low self-esteem, mania, and social withdrawal (Farmer, Farmer, & Gut, 1999).

Moreover, EBD can persist into adulthood; youth with EBD are less likely to reach normal social and educational achievement, and can place significant strain on their families and the healthcare system (O'Connell, Boat, & Warner, 2009). Early diagnosis and treatment of EBD have been shown to improve clinical outcomes in both primary and specialty care settings (Kutcher, & Davidson, 2007); however, youth engagement statistics are not promising. Estimates indicate that 44% of youth terminate their treatment prematurely (Dierker et al., 2001), with the average length of treatment as low as only four sessions (Kim, Munson, & McKay, 2012). Furthermore, 48-62% do not attend their initial appointment after being accepted for treatment (Harrison, McKay, & Bannon, 2004). Yet, despite a wealth of studies with the adult population, research regarding therapeutic engagement with youth with EBD remains relatively scarce.

1.2 Prevalence

According to recent prevalence estimates, EBD affect approximately 14-25% of Canadian youth (Kutcher & Davidson, 2007), and 10-20% of youth worldwide (Kieling et al., 2011). In Canada, approximately 14% of youth aged 4 to 17 years (800,000) fall within the clinical range (Neutropenia & Use, 2005). This figure can exceed 20% when considering non-
clinical cases (Angold & Costello, 1995). The most common EBD are anxiety disorders (panic disorder, agoraphobia, social phobia, specific phobia, generalized anxiety disorder [GAD], posttraumatic stress disorder [PTSD], separation anxiety disorder [SAD]) (31.9%), behavioural disorders (attention-deficit/hyperactivity disorder [ADHD], oppositional defiant disorder [ODD], and conduct disorder [CD]) (19.1%), mood disorders (major depressive disorder [MDD] or dysthymic disorder, bipolar I or II [BPD]) (14.3%), and substance use disorders (alcohol abuse/dependence, drug abuse/dependence) (11.4%), with 40% of youth experiencing comorbidity with at least one other disorder (Merikangas et al., 2010). Comorbidity can increase symptom severity (O'Connell, Boat, & Warner, 2009) and can complicate the identification and treatment of these disorders (Jones, 1990).

1.3 Etiology

Although the exact etiology of EBD in youth is unclear, a variety of genetic, environmental, and epigenetic factors have been implicated in their development (Rutter, 2003). Twin studies have demonstrated that many EBD have high rates of heritability (Bienvenu, Davydow, & Kendler, 2011) and several genes (e.g. the short allele of the serotonin transporter 5-HTTLPR and the long allele of DRD4) have been linked to EBD development and stress regulation (Martel, Nikolas, Jernigan, Friderici, & Nigg, 2012). Early caregiver sensitivity has been positively associated with academic skills and social competency at age 15 years (Fraley, Roisman, & Haltigan, 2013; Johnson, 2010). Sibling conflict has been associated with an increase in adolescent problem behaviour in middle school (e.g. truancy, lying, substance use, deviant peer circles), while father-youth connectedness was associated with less problem behaviour (Fosco, Stormshak, Dishion, & Winter, 2012). Negative childhood experiences (e.g. physical or sexual abuse, witnessing violence against mother, and living with caregivers who
abuse drugs or are mentally ill) have been associated with negative mental health outcomes in adulthood, including alcoholism and depression (O'Connell, Boat, & Warner, 2009). Moreover, the environment in which the individual develops can influence gene expression that is heritable (a concept known as epigenetics; Holliday, 2006). For example, McCormack and colleagues (2009) suggested that humans who possess the short allele of the serotonin transporter (5-HTTLPR) and are abused by their caregivers may be at a higher risk of developing psychopathology.

1.4 Theoretical Contributions

Developmental psychopathology is an overarching framework that incorporates many theories of human development, including ecological systems theory and attachment theory, to explain the origins and development of maladaptation, its age of onset, and its behavioural manifestations (Cicchetti, 1984; Sroufe & Rutter, 1984). Developmental psychopathologists are concerned with determining the patterns of behaviour that produce normative and non-normative functioning across the lifespan, and how these behaviours may differ (Achenbach, 1997). Two theories under the umbrella of developmental psychopathology that may prove useful for understanding youth with EBD are ecological systems theory and attachment theory.

Ecological systems theorists consider the youth’s disordered emotions or behaviours as a function of the youth’s interactions with the environment; that is to say, the actions of others or the conditions in the environment may promote EBD development in youth (Kauffman, 1993). As opposed to looking at interactions in dyadic terms, Bronfenbrenner (1977) proposed that multiple persons in the environment may interact with an individual in a complex bidirectional fashion. For example, youth unresponsiveness to disciplinary efforts has been associated with parental feelings of powerlessness and negative parenting behaviours, such as coldness or
rejection toward the youth and a lack of warmth (Glatz, Stattin, & Kerr, 2011). In this way, youth and parenting behaviours may interact in a bidirectional fashion to further produce stress in the family environment. Moreover, caring for youth with EBD can be especially stressful for parents and caregivers. Parents often report experiencing stigma, restrictions on personal activities, and poor personal well-being (Angold et al., 1998). Families of youth with Attention-Deficit Hyperactivity Disorder (ADHD) and Bipolar Disorder (BD) have been associated with impaired family functioning in the areas of problem-solving, role fulfillment, and affective involvement (i.e. the extent to which family members value each other) when compared to families of typically-developing youth (Young et al., 2013). Family members under stress have the potential to influence the family as a unit (Patterson, 2002), and a negative high-stress family environment (e.g. single parents, parental substance abuse, low income/resources) has been reported among many youth living in residential treatment centres (Preyde, Adams, Cameron, & Frensch, 2009).

Attachment theory considers the importance of early life attachment (security and proximity) to a central caregiver; the quality of this attachment contributes to the formation of one’s internal working model, or representation of self and others, which is said to influence one’s capacity to form interpersonal relationships later in life (Bowlby, 1969, 1982). Ainsworth, Blehar, Waters, and Wall (1978) proposed three different types of infant-caregiver attachment styles. As summarized by Westen, Nakash, Thomas, and Bradley (2006), infants who are securely attached are comfortable seeking contact with the caregiver and relying on the caregiver’s sensitivity and availability should the need arise. Avoidant attachment is characterized by indifference toward the caregiver; ambivalent attachment involves the infant’s desire for caregiver contact being unfulfilled. These three types of attachment are categorized as organized. Disorganized attachment was later proposed by Main and Solomon (1986), and is
characterized by the infant’s disorganized behaviour and disorientation when reunited with the caregiver.

Secure attachment in adolescents has been associated with healthy functioning, while unresolved/disorganized and preoccupied/ambivalent attachment styles were associated with personality pathology; no associations were found between dismissing/avoidant attachment and personality pathology in clinical (Nakash-Eisikovits, Dutra, & Westen, 2002) and non-clinical samples (Brennan, & Shaver, 1998). However, Rosenstein and Horowitz (1996) found adolescents with a dismissing/avoidant attachment style have been associated with a conduct (CD) or substance abuse disorder, while those with preoccupied/ambivalent attachment were associated with affective disorders (AFF), such as major depression, dysthymic disorder, and schizoaffective disorder; comorbid CDs and AFFs were associated with dismissing/avoidant attachment while unresolved/disorganized attachment was associated with AFFs regardless of comorbidity. Negative (i.e. unsupportive, critical, demanding) social interactions in adolescence and adulthood have been shown to promote stress and are associated with adverse mental health outcomes (Evans-Campbell, Lincoln, & Takeuchi, 2007).

In the present section, some of the major intrapersonal and psychosocial factors associated with the development of EBD were reviewed. The concept of therapeutic engagement, how it is measured, and the implications for youth with EBD will be discussed in the following chapter, as well as client-specific, contextual, and therapy-related variables and how they may relate to client engagement.
Chapter Two: Therapeutic Engagement

2.1 What is it?

In a systematic review of the youth engagement literature, Tetley and colleagues (2011) noted that the concept of engagement is often construed as synonymous with client motivation, attitudes toward treatment, and the client’s relationship with the therapist (the therapeutic alliance). While it has been shown that these factors may influence engagement, these authors argued that they are in fact separate and distinct concepts. In their view, engagement must involve clients making an active and independent behavioural contribution to therapy. They defined engagement as “the extent to which the client actively participates in the treatment on offer” (p. 928), and outlined its six components: (1) attendance of sessions, (2) completion of treatment within the expected timeframe, (3) completion of expected tasks between-sessions (homework), (4) participating in the tasks of the therapy, (5) maintaining an appropriate therapeutic alliance with the therapist, and (6) being supportive towards other members of the group (in group therapies). As we will see, other researchers have conceptualized client engagement as passive, with the therapist playing the active role. Ultimately however, client disengagement can lead to an ineffective use of services and poor treatment outcomes; it is for this reason that increasing client engagement has become a priority for mental health specialists (Tetley et al., 2011).

Some investigators have distinguished between two stages of engagement: at intake (initial appointments), and engagement thereafter (retention of engagement); the implication being that service, family, and client characteristics differ between stages (Kim, Munson, & McKay, 2012). For example, Gopalan and colleagues (2010) found that youth who reach the second stage, and engage in treatment after the initial appointments, are more likely to be from
higher socioeconomic status (SES) families, while those who drop out after the initial appointments tend to be from low-income, inner-city neighbourhoods. It should be noted, however, that measures of treatment retention may not be indicative of client engagement, as youth may be forced into therapy (e.g. by court-order; Broome, Joe, & Simpson, 2001).

Hill (2005) viewed clients as purposeful agents who play an active role in engaging with the therapist to determine what is important to improve their condition. Client engagement, therefore, is dynamic and may manifest itself differently depending on the client’s stage of treatment, of which there are four: (1) initial impression, (2) beginning of therapy, (3) tasks of therapy, and (4) termination. Each stage is characterized by the techniques used by the therapist, which allow clients to explore issues and gain new insights into lives. For example, during the initial impression stage, the therapist must educate clients on the structure and relevance of the therapy, convince clients of their credibility, and put clients at ease by exhibiting nonthreatening, supportive behaviours. If successful, client engagement will manifest in the form of regular attendance and willingness to form a relationship with therapist. The client will perceive the therapist as trustworthy and proceed to the second stage, which involves the client exploring his/her feelings, self-disclosing problems, and forming goals. In this way, Hill suggested clients engage in the interest of developing their relationship with the therapist, which in turn promotes further engagement, in a cyclic fashion.

In the present study, youth engagement in residential treatment and day treatment programs was examined. We adopted the view of Cunningham and colleagues (2009), who developed an engagement scale for youth in residential treatment centres. In reviewing the engagement literature, they concluded that engagement is most often predicted by client attitudes (e.g. motivation and expectations for therapy), the therapeutic alliance, and client behaviours
(e.g. attendance and rule compliance). They noted that residential treatment staff often consider client motivation as a key component of engagement, and that session attendance is less convincing as a measure of engagement in a residential treatment setting, since clients live on-site, or attendance is mandated (Cunningham et al., 2009).

2.2 How is it Measured?

According to Tetley and colleagues (2011), it is difficult to test the psychometric properties of measures of engagement because each client typically deals with one clinician or counselor with sufficient enough knowledge to rate his/her engagement in therapy, making inter-rater reliability difficult to assess. Also, since there are no agreed upon indices of engagement, validity is also difficult to test.

This difficulty stems from the ambiguous nature of the term “engagement”, which does not specify a particular behaviour for the client to display; therapy can involve a range of behaviours depending on the client’s treatment plan (Drieschner, Lammers, & van der Staak, 2004). For this reason, Cunningham and colleagues (2009) noted that clinician/staff rated measures of engagement are most common in the literature, as staff are most familiar with client needs, abilities, and engagement. However, if staff members have a positive relationship with a client or a positive outlook with regard to treatment outcomes, they may be more inclined to rate client engagement more positively. In addition to youths’ perceptions of their engagement, a more objective measure of engagement may be considered ideal (i.e. rated by an objective researcher). However, to empirically observe engagement behaviour would require researchers to observe clients as they attend sessions and observe their efforts at completing therapeutic homework, which may be unfeasible (Bains, Powell, & Lorenc, 2007; Kelly, Deane, & Lovett, 2012). To address this situation, Cunningham and colleagues (2009) suggest measuring
engagement using multiple sources (youth and staff); multiple sources may add validity to the engagement measure.

In their review of 40 studies measuring engagement, Tetley and colleagues (2011) found only one in which psychometric properties were reported and a youth population examined (i.e., Cunningham et al., 2009). Cunningham and colleagues’ (2009) engagement scale was developed specifically to rate youth engagement in residential treatment programs and has demonstrated strong internal reliability (Cronbach α=0.92) and fair construct validity (positively correlated with client-centred communication, positive reinforcement, and new roles and experiences measures; ranging from r=0.32-0.73, p < .01). The scale exists in three versions: youth, child care workers, and clinicians. The child care workers’ and clinicians’ versions are identical to the youth version, with minor wording differences to adjust the frame of reference. In this context, youth engagement is considered unidimensional (from client to therapist) and does not include clinician engagement in therapy, though it is understood that clinician characteristics can foster engagement in youth.

2.3 Factors Associated with Engagement

Kenny (2012) distinguished between three types of variables thought to influence client engagement in therapy: client-specific variables, such as client age, gender, ethnicity, symptom severity, family functioning and structure, and socioeconomic status; contextual variables, such as social support; and therapy-related variables, such as a client history of therapy, client insight and beliefs regarding treatment, motivation, and the therapeutic alliance. These are discussed in turn below.
2.3.1 Client-Specific Variables

While some findings suggest that younger adolescents (aged 13-15 years) participate more in treatment than older adolescents (aged 16-18; Wise, Cuffe, & Fischer, 2001), others suggest that adolescents aged 15-17 are more engaged than those aged 12-14 (Wu et al., 1999). Moreover, some suggest that adolescents in general are less likely than younger children to engage in treatment because they fear stigmatization from their peers (Gopalan et al., 2010) and wish to establish autonomy. Cunningham and colleagues (2009) also noted that youth form relationships with therapists more slowly and their engagement levels are more unstable than those of adults.

Findings are inconsistent with regard to gender differences and treatment engagement (Kenny, 2012). While gender differences in treatment engagement have been found in incarcerated people with substance abuse, suggesting female adults demonstrate higher engagement than male adults (Staton-Tindall et al., 2007), other researchers have found no gender differences in treatment engagement (Bakken et al., 2000; Garcia & Weisz, 2002), although exploring this area further with a youth population may prove useful. A common finding in health research is that males are less likely than females to seek help from health professionals when they become ill, possibly because they may be more reserved when expressing their emotions, due to a desire to adhere to the traditional “strong” masculine stereotype (Galdas, Cheater, & Marshall, 2005). Kenny (2012) suggested that this negative help-seeking behaviour may have negative implications for male engagement in therapy.

Englebrecht and colleagues (2007) reported that female youth with EBD were less likely than male youth to engage in therapy. The authors suggested that this finding may be reflective of gender differences typical in treatment settings; females are more likely to come from families
affected by drug use and sexual abuse. Under these circumstances, female youth may be more likely than male youth to attribute blame for their problems to external sources (i.e. family members) and, as a result, may see no need to engage in treatment (since they view their family as the problem).

Ethnocultural beliefs may also play an important role in therapeutic engagement. There is evidence to suggest African Americans are less likely than Whites to seek mental health treatment, and are more likely to terminate the treatment prematurely. This trend may be due to an African American preference to seek help from companions and face problems directly (Snowden, 2001); in the words of Black comedian Anthony Griffith, “for a Black person, a therapist is taboo…reserved for rich White people” (Griffith, n.d.). Researchers have also shown that not only are minority youth less likely to engage in mental health services compared to non-Hispanic Caucasian youth, they are also less likely to seek out these services in the first place (Gopalan et al., 2010). It is common for Mexican-American parents to feel obligated to overcome their child’s problems within the family; they may feel the need to discipline their child in the face of mental illness, rather than seek treatment (McCabe, 2002). Aboriginal communities in Canada and Australia have reported a fear of traditional western mental health programs (Vicary & Westerman, 2004); these programs are generally ineffective with Aboriginal populations as they tend to ignore the cultural, historical, and socio-political contexts unique to Aboriginal peoples (Smye & Mussell, 2001).

In adult populations, the number and severity of clinical symptoms has been associated with diminished client agreement with the therapist on the tasks of the treatment, and has been suggested to diminish client capacity to engage in therapy (Bachelor, Laverdiere, Gamache, & Bordeleau, 2007). This trend is particularly pronounced for clients with conduct and personality
disorders (e.g. narcissistic, borderline, and dependent; Gaston, 1991). In youth populations, findings are far less consistent. Some researchers have suggested that there is no relationship between the severity and number of youth internalizing and externalizing symptoms and treatment attrition (Viale-Val, Rosenthal, Curtiss, & Marohn, 1984), while others have shown that more numerous and severe externalizing symptoms were associated with less engagement (Dakof, Tejeda, & Liddle, 2001) and vice-versa (Gaines & Stedman, 1981). Gopalan and colleagues (2010) noted that youth diagnosed with Axis I behavioural disorders, such as Conduct disorder, are at an increased risk of dropping out of treatment prematurely, as are those with substance abuse disorder, than those with Axis I adjustment disorders (mood and anxiety disorders). Parental perceptions of their child’s symptoms may also play a role in youth engagement. For example, children whose parents reported more externalizing symptoms were more likely to participate in treatment, possibly because parents who recognize youth symptoms may be more motivated to seek treatment for their child (Dakof, Tejeda, & Liddle, 2001).

Many youth with EBD are from families under stress to meet financial obligations (Preyde et al., 2011). In these conditions, low SES has been associated with not only higher rates of EBD in youth, but also lower perceived social support (Gayman et al., 2011). Low SES has also consistently been shown to predict poor therapeutic engagement and dropout rates (Prinz & Miller, 1994; Reis, & Brown, 1999; Slipp, Ellis, & Kressel, 1974).

Family stress may also be compounded by other factors, including family structure. For example, youth relationships with parents may be more stressful in single-parent households, and the frequent moving between households (and parents) can lead to a negative perception of social support from both parents and peers (Gayman et al., 2011). Consequently, youth from single-parent households have been known to engage less in therapy and are at higher risk for dropping
out prematurely (Gopalan et al., 2010). The Strategic and Structural Family Systems Theory posits that family interactions are the basic unit of treatment, and emphasizes understanding the functioning of the family and the way it communicates as a means of promoting engagement in therapy; treating the entire family, therefore, is thought to be more important than treating individual members (Kim, Munson, & McKay, 2012). This theory is especially important considering that those who seek treatment have been known to do so in times of family crises, and those who drop out of treatment often do so because of family issues (Gopalan et al., 2010).

### 2.3.2 Contextual Variables

According to Bowlby (1969, 1982), the parent-child relationship early in life contributes to the formation of an “internal working model” that informs one’s beliefs and expectations of future relationships outside of the family (including relationships with peers and therapists). Therefore, it is reasonable to expect that youth with positive family relationships will have positive relationships with peers and therapists, and be more engaged in treatment than youth with negative family relationships. Huang and colleagues (2011) found evidence to support this idea; youth who reported having positive family relationships and friendships with peers who react negatively to deviant behaviour were more likely to receive increased services from staff, and therefore may engage more than youth with negative family and peer relationships. Related to positive family relationships, and an important component of the internal working model, is one’s perceptions of others as supportive of one’s needs, also known as “social support” (Gayman et al., 2011). Perceptions of low social support from family members have been shown to impede treatment and lead to a lack of engagement among adult clients in therapy (England Kennedy & Horton, 2011). Furthermore, youth may refuse treatment if they are
concerned that their friends and family may stigmatize them or perceive them in a negative light (Gopalan et al., 2010).

EnglandKennedy and Horton (2011) highlighted the burden of care that caregivers may feel toward an adult family member with a mental illness; feelings of shame regarding their loved one’s illness may lead to family members rejecting them. Unfortunately, many clients enrolled in mental health services live in impoverished neighbourhoods where caregivers do not have access or the resources required to educate themselves on proper coping strategies and how to deal with the mental health illness of their loved one (Gopalan et al., 2010). EnglandKennedy and Horton (2011) found that a lack of knowledge about coping in family members was associated with not only low perceptions of well-being, but also a lack of engagement in therapy. One client who was interviewed said her family would interpret her anger as a symptom of mental illness rather than the result of stress brought on by family. This misinterpretation led her to fear rejection by family. They concluded that family members who attempt to be helpful but lack an education of the specific condition may do more harm than good; many family members described being unsure of how to respond to their loved one’s actions. For example, clients seeking solitude or “alone time” were often interrupted by their family members who believed they were rejecting their family. Some family members even admitted to attempting to persuade their loved one to stop taking their prescribed medications out of fear they would develop a dependency. Parents who believed their child’s illness had a physical cause were shown to be 1.56 times more likely to seek mental health services than if they believed their child’s illness was the result of poor family or friend relationships (Gopalan et al., 2010). For these reasons, family therapists will inquire about any values and beliefs family members have that may hinder effective engagement and completion of therapy (Kim, Munson, & McKay, 2012).
Furthermore, researchers have suggested that some parent-child interactions may contribute to the maintenance of child anxiety and impact treatment engagement; parents who are overprotective may induce the child to be fearful of the world and produce anxiety (Podell & Kendall, 2011). In one study, high distress in mothers was associated with an increased likelihood of youth premature treatment termination by 63% (Fernandez & Eyberg, 2009). Furthermore, children of parents diagnosed with anxiety-disorders were shown to have a 60% chance of also having an anxiety-disorder (Podell & Kendall, 2011).

In the present section, the association of negative family relationships with one’s capacity to form interpersonal relationships with others outside the family and potentially impede one’s engagement in a therapeutic setting was reviewed. How a client’s history of therapy, beliefs, motivation, and therapeutic alliance are associated with therapeutic engagement will be reviewed in the following section.

2.3.3 Therapy-Related Characteristics

2.3.3.1 Client History of Therapy

In the case of the present study, it is important to consider that many youth of diverse histories are enrolled in residential treatment and day treatment programs, and some may be more experienced with the mental health system than others. Treatment experienced clients have been found to engage less and have less favourable treatment outcomes than treatment naïve clients (Hser, Grella, Hsieh, Anglin, & Brown, 1999). This trend may result from a state of precontemplation (in which clients have no intention to seek or engage in treatment) that may accompany demoralised feelings following repeated attempts to improve behaviour, but to no avail (Prochaska & Velicer, 1997). The chronicity of mental health disorders may also influence client engagement, as clients with chronic mental health disorders often disagree with therapists
on the goals and tasks of their treatment and are often ambivalent about improving their condition (Koekkoek, Hutschemaekers, Van Meijel, & Schene, 2011).

Kim, Munson, and McKay (2012) noted that there is a lack of studies that were designed to examine engagement as a function of client experience with the mental health system (e.g. youth who are newly enrolled, versus youth who have been in and out of facilities for years). Moreover, it has been hypothesized that youth referred to treatment by coercive sources (e.g. school officials, police) are more likely to terminate treatment before completion than those referred by noncoercive sources (e.g. parents, physicians); researchers found evidence to support this claim in a sample of White clients, although premature termination did not differ by referral source for Black clients (Viale-Val, Rosenthal, Curtiss, & Marohn, 1984).

### 2.3.3.2 Client Beliefs

Related to engagement, are client beliefs regarding the perceived benefits and potential barriers of the treatment, known as the Health Belief Model (Kim, Munson, & McKay, 2012). Youth who believe treatment will be beneficial to their health have been shown to engage more in therapy, as well as have a stronger relationship with their therapist, than those youth who do not believe the treatment will benefit them (Elkin et al., 1999). In addition, Munson and colleagues (2011) noted that youth faced with potential barriers to treatment are known to engage less in therapy; these barriers may include a fear of seeking help, a fear of relapse once treatment is completed, and a fear that treatment may interfere with important relationships (one youth was concerned her children would be taken away if she was in treatment). A large number of youth in residential treatment come from negative family environments characterized by a lack of trust between family members (England Kennedy & Horton, 2011). However, consistent with the Health Belief Model, engagement in treatment may increase if the youth believe a potential
benefit of the treatment is that it may repair family relationships (England-Kennedy & Horton, 2011).

The concept of insight is defined as the degree to which clients are aware of their illness, its symptoms, and the need for treatment (Riggs, Grant, Perivoliotis, & Beck, 2012). Youth who lack insight into their conditions have been associated with less desire to seek treatment than those youth with insight (Rickwood & Braithwaite, 1994; Rickwood, Deane, Wilson, & Ciarrochi, 2005). Since youth rarely seek treatment on their own (Mukolo, Heflinger, & Wallston, 2010), it is often the family or caregivers that provide the youth with insight regarding their condition(s) (Munson et al., 2011). Furthermore, insight has also been described as the knowledge that accompanies a breakthrough in treatment, or an “Aha!” experience (Huprich, 2010). Gibbons, Crits-Christoph, Barber, and Schamberger (2007) suggested that greater insightfulness may be associated with greater client engagement; however, they found mixed evidence to support the hypothesis that greater insightfulness is associated with better treatment outcomes.

### 2.3.3.3 Motivation

Motivation is defined as the internal force that drives a client to engage in a behaviour, in this case “motivation to enter treatment” or “motivation to engage in treatment” (once it has begun; Drieschner, Lammers, & van der Staak, 2004). According to the transtheoretical model (Prochaska, DiClemente, 1982; Prochaska, DiClemente, & Norcross, 1992; Prochaska & Velicer, 1997), client motivation progresses through six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination. A client is in the precontemplation stage if he/she does not intend to enter or engage in treatment in the future (defined as six months), and is most likely due to the client’s lack of insight; those in the
contemplation stage are aware of their need for treatment and intend to take action within the next six months. Clients in the preparation stage intend to take action usually within a month, and have taken steps to prepare themselves, including formulating a plan of action. Action is the stage in which clients have made overt, observable behavioural changes (such as engagement in therapy) to their lifestyles in the last six months. Maintenance involves taking steps to prevent relapse and termination is when the client is healthy and confident he/she will not return to their unhealthy state.

It has been hypothesized that motivated clients are likely to commit to and engage in the tasks of the therapy (Bachelor et al., 2007), as researchers have consistently shown motivation to be the best predictor of client engagement, treatment retention, and outcomes (Broome, Joe, & Simpson, 2001). Furthermore, client motivation may be an especially important factor to consider when treating adolescents, as they rarely seek treatment on their own and are commonly referred to treatment by court order or family members; for this reason, researchers suggest adolescents may be less motivated for treatment than adults (Melnick, De Leon, Hawke, Jainchill, & Kressel, 1997).

According to Ajzen’s (1991) Theory of Planned Behaviour (TPB), the stronger an individual’s motivation to perform the behaviour, the more likely it will be performed. The TPB approach to engagement research has been criticized for examining only motivation to engage in behaviour and not actual observable behaviour. Empirical observations would be ideal, but they are simply not feasible for reasons already discussed (Kelly, Deane, & Lovett, 2012). Proponents of the TPB argue that measuring motivation to engage in behaviour is useful because it is often highly predictive of the behaviour being performed, and is much more feasible to accomplish (Bains, Powell, & Lorenc, 2007). However, in a meta-analyses of the intention-behaviour
literature, Sheeran (2002) found a gap exists between the intention to perform a behaviour and actually enacting the behaviour (the median percentage of intenders who failed to enact their intentions was 47%). As opposed to predicting behaviour based on intentions, the Self-Determination Theory (SDT; Deci & Ryan, 1985, 1991) is an approach to motivation research that involves investigating the social context that contributes to motivation and intention to engage in a behaviour. According to the SDT, motivation to engage can be enhanced by social contextual events that conduce feelings of competency (e.g. feedback, communication, rewards), autonomy (e.g. freedom of choice, acknowledgment of feelings, opportunities for self-direction), and relatedness (e.g. support and caring supervision).

2.3.3.4 Therapeutic Alliance

The therapeutic alliance has been defined as the emotional bond between the therapist and the client, the level of agreement between the two parties on the tasks and goals of the therapy (Kim, Munson, & McKay, 2012). A strong therapeutic alliance has been associated with not only greater engagement and treatment retention, but improved treatment outcomes as well (Kendall et al., 2009).

Bachelor and colleagues (2007) identified three types of client-therapist collaboration. *Active collaboration* is defined by the client taking an active approach to therapy, disclosing personal information in an open manner, initiating discussion without prompt from the therapist, and behaving in a way that readily facilitates treatment. *Mutual collaboration* occurs when both the therapist and client play an equally active role in therapy (i.e. the client may openly participate in treatment but only after proper guidance or prompting from the therapist). *Dependent collaboration* implies the therapist is the primary contributor to the therapy intervention, providing direct guidance and instruction to the client; in this circumstance, client
engagement is minimized. Bachelor and colleagues (2007) noted that 71% of the clients in their study with severe pathology demonstrated dependent collaboration.

Moreover, when considering the youth mental health population, it is important to examine the role family members may play in therapy. As Oetzel and Scherer (2003) pointed out, family members present a unique set of obstacles when it comes to the formation of the therapeutic alliance; the therapist must not only meet the needs of the youth, but the family members as well. In these cases, family may resist participating in treatment if they feel they are being blamed for their child’s problems. Indeed, researchers have shown that parents who felt disrespected by their child’s therapist were 6 times more likely to doubt the purpose and effectiveness of the treatment, and differences between measures of parent and child therapeutic alliance significantly predicted premature dropout rates, as well as differences between mother and father alliance with the therapist (Gopalan et al., 2010). Therapists have also reported having difficulties reaching out to family members who might be helpful in fostering youth engagement; travelling to the home of the family and holding sessions there has been shown to be not only time consuming, but ineffective (Kim, Munson, & McKay, 2012).

In interviewing youth and families, Thompson and colleagues (2007) found that parent and youth opinions regarding the therapeutic alliance can be broken down into two categories: relationship-building and task-centered alliance. Relationship-building was described as a collaboration between therapist and family. Parents and youth appreciated therapists who could make them feel at ease and comfortable; therapist informality appeared to promote engagement in therapy (dressing casually or acting as though they are part of the family). The therapeutic relationship is also stronger when the client and therapist are of the same gender, and racial matching improves treatment retention (Wintersteen, Mensinger, & Diamond, 2005). As for the
task-centered alliance, parents and youth appreciated therapists who scheduled tasks and goals around the interests and abilities of the family, and provided them with new insights and skills to help them cope (Thompson et al., 2007).

Based on his own experiences as a clinician, Miller (1991) suggested that client extraversion is associated with the client’s enthusiasm to talk with the therapist, while neuroticism is associated with client distress. However, Bachelor, Meunier, Laverdière, and Gamache (2010) found extraversion and neuroticism were not significant predictors of clients’ attachment to their therapists or agreement on the tasks and goals of the therapy in a sample of adults in treatment. Other researchers have shown extraversion and neuroticism to be associated with treatment outcomes (Kolb, Beutler, Davis, Crago, & Shanfield, 1985). Quilty and colleagues (2008) found a significant main effect of neuroticism/introversion was moderated by extraversion in adult outpatients with Major Depressive Disorder (MDD). High scorers on neuroticism/behavioural inhibition were associated with low response to treatment while high scorers on extraversion/behavioural activation were associated with greater response to treatment (i.e. reduction in depression severity) if they also scored low on neuroticism/introversion.

As we discussed earlier, Bowlby (1988) posited that the client-therapist relationship is likely to be influenced by the clients’ internal working models, informed by their early attachment experiences. There is evidence to suggest that the clients’ quality of attachments and strong family and nonfamily relationships are associated with their ability to form a relationship with the therapist (Gaston, 1991; Kokotovic & Tracey, 1990; Mallinckrodt, 1991). Furthermore, youth who openly communicate with parents and spontaneously self-disclose information about their private lives are more likely to have positive relationships with their parents, less depressed symptoms, and a higher self-esteem than youth who do not self-disclose (Kerr & Stattin, 2000).
Chapter Three: The Current Study

3.1 Rationale and Purpose

Most researchers have chosen to explore the relationship between client demographics (age, gender, family structure, etc.) and therapeutic engagement. Relatively few have explored the relationship between engagement and psychosocial factors (e.g. interpersonal and family functioning) that developmental psychopathologists associate with youth with EBD. While some researchers have explored the working alliance in relation to aspects of interpersonal functioning (e.g. capacity for intimacy; Gaston, 1991), how interpersonal functioning may relate to therapeutic engagement remains unclear. Moreover, most of these studies involve American adult populations; few researchers have examined engagement and the characteristics of youth in Canadian residential and day treatment centres.

In one Canadian study, the clinical outcomes of youth accessing residential treatment centers were assessed using standardized measures of symptom severity and functioning (Preyde et al., 2011). While some statistically significant improvements (in mood severity, self-harm behaviour, behaviour towards others, antisocial behaviour) were demonstrated from admission to discharge and a three year follow-up, other behaviours showed no change, or behaviours were still in the clinical range (impaired thinking, managing anxiety, substance use, cooperation with others) after discharge. The goal of service providers at residential treatment centres is not necessarily to eliminate (i.e. chronic symptoms), but to stabilize, all symptoms and allow for a continuum of services that aid youth in managing their symptoms and improve their quality of life (e.g., residential treatment youth are often discharged into the care of community mental healthcare). Therefore, exploring the degree of youth engagement and its possible correlates in these centres may enhance understanding and inform practice.
Research questions were:

1) At what level do Canadian youth and mental health professionals (i.e. Prime Workers) in residential and day treatment programs rate youth engagement in therapy? Are youth and Prime Worker ratings of youth engagement statistically different? If so, youth and prime worker ratings may not reflect the level at which youth were engaging.

2) What are the characteristics (sociodemographics, behavioural screen, family functioning, and interpersonal problems) of youth in residential treatment and day treatment programs? Since residential treatment typically services youth with more severe EBD than day treatment, and ADHD and conduct disorders are common among this population (Preyde et al., 2011), it is expected that youth in residential treatment will score higher in interpersonal and behavioural problems, especially conduct and hyperactivity problems. Also, because many youth living in residential treatment have reported negative high-stress family environment (e.g. single parents, parental substance abuse, low income/resources; Preyde, Adams, Cameron, & Frensch, 2009) it is expected that residential treatment youth will report greater family dysfunction than day treatment youth.

3) Are youths’ interpersonal problems and family functioning associated with youth engagement in therapy? Since interpersonal functioning (Bowlby, 1988) is believed to be an important component of the therapeutic process, it was expected that youth with greater family functioning and lower interpersonal problems would be associated with greater scores on the engagement scale than vice versa.
3.2 Methodology

3.2.1 Setting

All participants were recruited from two agencies in Southern Ontario offering residential and day treatment programs to youth with EBD. Both agencies provide residential treatment programs at two separate locations (one agency features an all-male residence and an all-female residence, while the other features one all-female residence and another mixed residence). These residential treatment programs provide intensive mental health treatment to youth aged 12 to 18 years, and usually consist of three – three-month long phases lasting a total of nine months. Phase One involves the youth attending the program for 5-7 days a week, where they receive intensive mental health treatment for a three month period. For youth with family or guardians, phase two consists of the youth spending half of the week receiving treatment on-site (Sunday-Wednesday, or Wednesday-Saturday) and the other half at home, where they are visited by a social worker. Phase Three consists of a two night stay in the residential program, as well as weekly telephone contact when they are at home, and a monthly visit at home by a social worker. Youth may attend their own schools, or specialized classrooms on-site. Treatment plans are individualized to meet each youth’s needs, and individual and family sessions are offered for the first six months. Parents are also encouraged to attend regular meetings with a social worker and work closely with residential staff. The average length of stay is between six and nine months.

Both agencies also provide mixed gender day treatment programs (one agency services youth ages 13-18, while the other services youth ages 8-14). These day treatment programs provide integrated mental health treatment and schooling services for youth whose histories of social and mental health difficulties have made them unable to function in conventional educational settings. An individual education and treatment plan is developed for each youth,
and services are provided by a special education teacher and three child and youth workers onsite. These programs operate from 8:30am-2:30pm, after which youth return home to their families or guardian(s).

3.2.2 Procedure

Youth over 16 enrolled in the residential and day treatment programs were informed that a study was in progress by agency staff and asked if they would like to learn more about the study from a Research Assistant. If interested, staff provided the Research Assistant the youth's first name and the Research Assistant arranged to meet with the youth in a meeting room designed for personal communications. The Research Assistant then reviewed the consent form with the youth and obtained informed consent. For youth under 16, parents/guardians were contacted by agency staff and those who agreed to give their name to the researcher were contacted by the Research Assistant by phone or in person and the study was fully explained and informed consent sought for the youth to participate. If the parent/guardian gave consent, then the Research Assistant sought assent from the youth. To sample the youth’s Prime Workers, the Research Assistant met with Prime Workers in their offices and obtained informed consent before administering the surveys. All participants (including Prime Workers) received a $10 Tim Horton’s gift card for their participation. Research ethics clearance was granted by the University of Guelph Research Ethics Board (Appendix A).

Inclusion criteria were male and female youth aged 12-18 years who did not meet criteria for an intellectual disability or psychosis which may have prevented them from understanding consent or the questionnaires. Youth must have been admitted for at least three months, as suggested by the residential treatment manager. This time frame would provide Prime Workers enough time to develop a relationship with (i.e. engage) the youth, orient themselves with the
youth, and more accurately rate their level of engagement. However, consistent with field research, a procedural error was made and two youth were enrolled who had attended for about two months, and five youth who had attended for a month. Since Cunningham and colleagues (2009) indicated four weeks as sufficient time for the youth to engage in treatment, these youth were retained in the analyses. Youth who attended both residential and day treatment programs could participate only once in the study.

3.2.3 Measures

The youth survey consisted of the following self-report measures (in addition to demographics questions): The youth-self report version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer, & Bailey, 1998) was used to measure the severity of youth symptoms. The scale was designed for youth aged 11-16 years and consists of five subscales (hyperactivity, emotional symptoms, conduct problems, peer problems and pro-social behaviour) of five items each, for a total of 25 items. Each item consists of a 3-point Likert scale (0=not true, 1=somewhat true, 2=certainly true), with scores summed to create a subscale score ranging from 0-10. All subscale scores (except the prosocial behaviour score) were then summed to create a total difficulties score ranging from 0-40. Higher scores were indicative of greater pathology. Scores ranging from 0-15 are generally viewed as normal, while those ranging from 16-19 are considered borderline, and cases that fall between 20 and 40 are considered abnormal. Sample items include ‘I get a lot of headaches, stomach-aches or sickness’, ‘I get very angry and often lose my temper’, and ‘I am usually on my own. I generally play alone or keep to myself’ (Goodman et al., 1998). The SDQ has been shown to have satisfactory internal consistency (Cronbach α=.80), although the peer problems subscale has yielded low Cronbach’s α values in prior studies (Goodman, 2001 and Muris, Meesters, & van den Berg, 2003; 0.41 and 0.54,
respectively). Criterion validity has been demonstrated with strong significant (p < .001) correlations on all subscales with the Child Behaviour Checklist (CBCL; ranging from r=.59 to r=.87; Goodman & Scott, 1999). The SDQ is widely used internationally as a research tool to assess mental health problems among youth populations (Woerner et al., 2004).

Client Engagement was measured using the Cunningham and colleagues’ (2009) engagement scale developed specifically for youth who have been admitted to residential treatment for at least four weeks. The scale exists in three versions: youth, child care workers, and clinicians. The child care workers’ and clinicians’ versions are identical to the youth version, with minor wording differences to adjust the frame of reference. Youth and their prime worker each completed the scale, which is used to measure engagement across three domains: client attitudes toward therapy (5 items), the therapeutic alliance (7 items), and client behavioural contributions to therapy (5 items). Each domain contains a series of statements which must be rated on a 7-point Likert scale (from strongly disagree to agree). Some examples include client attitudes toward therapy (“Maybe this place will be able to help me”; “I hope that someone here will have some good advice for me”), the therapeutic alliance (“I feel that staff here care about me even when I do things that they do not approve of”; “I believe that staff here like me”), and client behavioural contributions to therapy (“I am finally doing some work on my problems”; “Staff and I are working towards goals we agree on”). Mean scores were generated for each subscale, with higher scores indicative of a greater level of youth engagement. The scale has demonstrated strong internal reliability (Cronbach α=0.92) and fair construct validity (ranging from r=0.32-0.73, p < .01). When rating engagement, participants were asked to generalize about their feelings and behaviours during the previous four weeks.
Youths’ ability to form relationships with others was measured using the short version of the Inventory of Interpersonal Problems (IIP-32; Barkham, Hardy, & Startup, 1996; Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988). The scale consists of 8 subscales that measure a range of interpersonal difficulties (hard to be sociable, hard to be assertive, hard to be supportive, hard to be involved, too aggressive, too open, too caring, and too dependent). Each subscale consists of 4 items that require youth to rate how distressing each problem has been on a 5 point scale from 0=not at all to 4=extremely. Sample items include “It is hard for me to trust other people” and “It is hard for me to let other people know what I want”. The mean scores were calculated with higher scores indicating greater interpersonal distress. The scale has been used in other studies on youth populations examining the therapeutic alliance and has demonstrated strong reliability (Moriarty et al., 2001), and overall test re-test correlation 0.70; Fichman, Koestner, & Zuroff, 1994: Grades 7-11, Cronbach alphas: 0.71-0.83).

To assess overall family functioning in youths’ lives, the general functioning subscale of the McMaster Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983) was administered. This scale is a self-report measure designed for individuals aged 12 and up and considers family structure, organization, and patterns of interaction to determine the degree of family dysfunction. Participants completed 12 items that are scored on a four point scale from 1 (strongly agree) to 4 (strongly disagree). Mean scores above 2.17 are considered indicative of family dysfunction. Sample items include “Planning family activities is difficult because we misunderstand each other”, “We confide in each other”, and “We avoid discussing our fears and concerns”. Youth were instructed to think of their overall experiences with their family or caregivers closest to them. Strong validity and internal reliability has been demonstrated (Cronbach α =.86; Byles, Byrne, Boyle, & Offord, 1988).
The *Prime Worker survey* consisted of demographic questions and a rating of youths’ engagement using the Prime Worker version of the same engagement measure that was completed by youth.

### 3.2.4 Data Analyses and Sample Size

Demographic data were analysed with descriptive statistics. Paired-samples t-tests were used to determine if there was a statistically significant difference between youth and prime worker ratings of youth engagement. To explore the associations between youth engagement, interpersonal problems, and family functioning, IIP-32 Total scores and FAD scores were regressed onto total youth engagement scores. According to Cohen (1992), with a large effect size at power=.80 and α=.05 a sample size of 30 would be required for a multiple regression with two predictor variables, 34 with three predictors, and 38 with four predictors. Since our sample consisted of only 28 youth, multiple regression analyses were limited to two predictor variables (IIP-32 and FAD scores). Missing data were dealt with by substituting the mean individual subject score on the appropriate subscale where appropriate.

### 3.3 Results

Of the 47 eligible youth, 28 (60%) participated in this study during the recruitment period from December to May (n=15 in residential treatment; n=13 in day treatment). One youth was excluded because his CAS worker felt he would not respond well to the line of questioning, and another was discharged before consent could be obtained. Three could not be included as repeated attempts to contact their CAS workers were unsuccessful, and 4 were unavailable to participate due to poor attendance. Ten youth were not interested. The mean age of the youth was 15.3 (SD 1.7) years and most (n = 20, 71%) were female (Table 1).
The mean length of time youth were enrolled at their current facility (as reported by their Prime Worker) was 9.11 (SD 8.24) months and this figure did not significantly differ between residential treatment and day treatment enrolled youth. There were also no statistically significant differences between groups in age, gender, or school grade. Youth did not significantly differ in terms of their reported caregiver from the time they were born to about age five; however, youth did differ across groups in their reported last contact and frequency of contact with this person ($X^2 = 13.24, p = .01$ and $X^2 = 17.82, p < .01$, respectively), although it should be noted that 6 (40%) residential treatment youth did not complete these two questions. One residential treatment youth declined to answer any questions pertaining to family functioning because he claimed to have no memory of family experiences.

Youth also significantly differed in terms of ethnicity ($X^2 = 9.77, p < .05$) in the residential treatment and day treatment groups. Surprisingly, youth significantly differed in their number of self-reported diagnoses ($X^2 = 10.13 p < .01$), with 10 (77%) day treatment youth reporting having one or more mental health diagnosis, compared to only 4 (27%) residential treatment youth. Scores on the SDQ suggest that youth reported symptoms within the borderline range, with two exceptions: conduct problems were within the normal range for day treatment youth, and hyperactivity problems were within the normal range for residential treatment youth. All youth also scored within the normal range on the prosocial behaviour subscale. Residential treatment youth also scored above the clinical cutoff of 2.17 on the FAD, indicating family dysfunction. Despite the significant differences noted, there were no significant differences between residential treatment and day treatment youth in IIP-32 or engagement scores (Tables 2 and 3). Therefore, all residential and day treatment youth were included together in subsequent analyses. Cronbach’s $\alpha$ values for most subscales were generally satisfactory (See Appendix B).
TABLE 1 Youth Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Residential Treatment (n=15)</th>
<th>Day Treatment (n=13)</th>
<th>Total (n=28)</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, in years, M (SD)</td>
<td>15.5 (1.5)</td>
<td>15.1 (1.9)</td>
<td>15.3 (1.7)</td>
<td>t(26)=-.599 (.554)</td>
</tr>
<tr>
<td>Gender, n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>2 (13%)</td>
<td>6 (46%)</td>
<td>8 (29%)</td>
<td>X² = 3.68, (.055)</td>
</tr>
<tr>
<td>Females</td>
<td>13 (87%)</td>
<td>7 (54%)</td>
<td>20 (71%)</td>
<td></td>
</tr>
<tr>
<td>Grade, n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 7-9</td>
<td>4 (29%)</td>
<td>4 (29%)</td>
<td>8 (29%)</td>
<td>X² = .016 (.901)</td>
</tr>
<tr>
<td>Grades 10-12</td>
<td>10 (29%)</td>
<td>9 (29%)</td>
<td>19 (29%)</td>
<td></td>
</tr>
<tr>
<td>Subjective Social Status, M (SD)</td>
<td>5.1 (2.3)</td>
<td>5.8 (1.4)</td>
<td>5.4 (2.0)</td>
<td>t(25)=-.895 (.379)</td>
</tr>
<tr>
<td>Ethnicity, n (%)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>5 (33%)</td>
<td>10 (77%)</td>
<td>15 (54%)</td>
<td>X² = 9.77 (.021)</td>
</tr>
<tr>
<td>Black</td>
<td>3 (21%)</td>
<td>2 (15%)</td>
<td>5 (19%)</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>0 (0%)</td>
<td>1 (8%)</td>
<td>1 (4%)</td>
<td></td>
</tr>
<tr>
<td>Aboriginal</td>
<td>7 (50%)</td>
<td>0 (0%)</td>
<td>7 (26%)</td>
<td></td>
</tr>
<tr>
<td>Self-Reported Mental Health Diagnosis, n(%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>1 (7%)</td>
<td>6 (46%)</td>
<td>7 (25%)</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>1 (7%)</td>
<td>4 (31%)</td>
<td>5 (18%)</td>
<td></td>
</tr>
<tr>
<td>Attention</td>
<td>2 (13%)</td>
<td>1 (8%)</td>
<td>3 (11%)</td>
<td></td>
</tr>
<tr>
<td>Deficit/Hyperactivity Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourette’s</td>
<td>0 (0%)</td>
<td>3 (23%)</td>
<td>3 (11%)</td>
<td></td>
</tr>
<tr>
<td>Asperger’s</td>
<td>0 (0%)</td>
<td>3 (23%)</td>
<td>3 (11%)</td>
<td></td>
</tr>
<tr>
<td>Obsessive-Compulsive Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borderline Personality Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating Disorder</td>
<td>0 (0%)</td>
<td>1 (13%)</td>
<td>1 (4%)</td>
<td></td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>0 (0%)</td>
<td>1 (13%)</td>
<td>1 (4%)</td>
<td></td>
</tr>
<tr>
<td>Conversion Disorder</td>
<td>0 (0%)</td>
<td>1 (13%)</td>
<td>1 (4%)</td>
<td></td>
</tr>
</tbody>
</table>
### Number of Diagnoses, n (%)**

<table>
<thead>
<tr>
<th>Diagnosis Reported</th>
<th>No diagnosis reported</th>
<th>One diagnosis reported</th>
<th>More than one reported diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11 (73%)</td>
<td>3 (23%)</td>
<td>1 (7%)</td>
</tr>
<tr>
<td></td>
<td>3 (20%)</td>
<td>2 (15%)</td>
<td>8 (62%)</td>
</tr>
<tr>
<td></td>
<td>14 (50%)</td>
<td>5 (18%)</td>
<td>9 (32%)</td>
</tr>
</tbody>
</table>

\[X^2 = 10.13 \ (p = .006)\]

Length of time enrolled at current residential treatment/day treatment facility, in months, M (SD)

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>n=12</th>
<th>n=13</th>
<th>n=25</th>
<th>t(23)</th>
<th>(p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.50 (8.62)</td>
<td>10.60 (7.93)</td>
<td>9.11 (8.24)</td>
<td>-.936</td>
<td>.359</td>
</tr>
</tbody>
</table>

*p ≤ .05. **p ≤ .01. (two-tailed).

### Table 2: Youth Scale Scores on the SDQ, IIP-32, and FAD General Functioning Subscale

<table>
<thead>
<tr>
<th>Scale</th>
<th>Residential Treatment</th>
<th>Day Treatment</th>
<th>Total</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDQ * Scores, M(SD)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=.612 (.546)</td>
</tr>
<tr>
<td></td>
<td>5.80 (2.08)</td>
<td>5.23 (2.83)</td>
<td>5.54 (2.43)</td>
<td></td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=1.16 (.257)</td>
</tr>
<tr>
<td></td>
<td>3.27 (2.46)</td>
<td>2.31 (1.80)</td>
<td>2.82 (2.20)</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=-.898 (.378)</td>
</tr>
<tr>
<td></td>
<td>5.33 (2.16)</td>
<td>6.08 (2.22)</td>
<td>5.68 (2.18)</td>
<td></td>
</tr>
<tr>
<td>Peer Problems</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=1.03 (.312)</td>
</tr>
<tr>
<td></td>
<td>4.67 (1.72)</td>
<td>3.92 (2.10)</td>
<td>4.32 (1.91)</td>
<td></td>
</tr>
<tr>
<td>Prosocial Behaviour</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=.198 (.844)</td>
</tr>
<tr>
<td></td>
<td>7.47 (2.17)</td>
<td>7.31 (2.06)</td>
<td>7.39 (2.08)</td>
<td></td>
</tr>
<tr>
<td>SDQ Total Difficulties</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td>t(26)=-.686 (.499)</td>
</tr>
<tr>
<td></td>
<td>19.07 (5.56)</td>
<td>17.54 (6.23)</td>
<td>18.36 (5.82)</td>
<td></td>
</tr>
</tbody>
</table>

| **IIP-32** Scores, M (SD)  |                       |               |             |                          |
| Hard to be Sociable       | n=15                  | n=13          | n=28        | t(26)=-.139 (.891)      |
|                           | 2.05 (1.15)           | 2.12 (1.34)   | 2.08 (1.22) |                          |
| Hard to be Assertive      | n=15                  | n=13          | n=28        | t(26)=.778 (.444)       |
|                           | 2.02 (1.09)           | 1.67 (1.25)   | 1.86 (1.16) |                          |
| Hard to be Supportive     | n=15                  | n=13          | n=28        | t(26)=1.56 (.130)       |
|                           | 1.75 (.98)            | 1.13 (1.11)   | 1.46 (1.07) |                          |
| Hard to be Involved        | n=15                  | n=13          | n=28        | t(26)=1.48 (.151)       |
|                           | 1.87 (.99)            | 1.29 (1.08)   | 1.60 (1.05) |                          |
| Too Aggressive            | n=15                  | n=13          | n=28        | t(26)=-1.06 (.306)      |
|                           | 1.37 (1.39)           | 1.88 (1.16)   | 1.61 (1.29) |                          |
Too Open 1.48 (.70) .98 (.94) 1.25 (.85) t(26)=1.61 (.299)
Too Caring 2.05 (1.30) 1.50 (.91) 1.79 (1.15) t(26)=1.28 (.213)
Too Dependent 1.93 (1.34) 1.52 (.92) 1.74 (1.16) t(26)=.940 (.356)
IIP-32 Total Score 1.82 (.87) 1.51 (.56) 1.68 (.75) t(26)=1.11 (.279)

\[
\text{FAD *** General Functioning Subscale Score} \\
\text{M (SD)} \\
2.35 (.72) 1.89 (.59) 2.13 (.69) \text{ t(25)=1.79 (.086)}
\]

\[
\text{Family Functioning Classification, n (%)} \\
\text{Healthy} 5 (36\%) 8 (62\%) 13 (48\%) \chi^2 = 1.80 (.180) \\
\text{Pathological} 9 (64\%) 5 (38\%) 14 (52\%)
\]

* SDQ=Strengths and Difficulties Questionnaire, **IIP-32=Inventory of Interpersonal Problems (Short Version), *** FAD=Family Assessment Device. No significant differences found (two-tailed).

TABLE 3 Youth Engagement Scores

<table>
<thead>
<tr>
<th>Engagement Scale Subscale Scores</th>
<th>Residential Treatment</th>
<th>Day Treatment</th>
<th>Total</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (SD)</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td></td>
</tr>
<tr>
<td>Youth Attitudes Toward Therapy</td>
<td>5.45 (.84)</td>
<td>5.51 (1.32)</td>
<td>5.48 (1.07)</td>
<td>t(26)=-.132 (.896)</td>
</tr>
<tr>
<td>Bond with Staff</td>
<td>5.26 (1.25)</td>
<td>5.51 (1.27)</td>
<td>5.37 (1.24)</td>
<td>t(26)=-.521 (.607)</td>
</tr>
<tr>
<td>Youth Behavioural Contributions in Therapy</td>
<td>5.60 (.96)</td>
<td>5.69 (1.26)</td>
<td>5.64 (1.09)</td>
<td>t(26)=-.220 (.827)</td>
</tr>
</tbody>
</table>
A total of 18 Prime Workers (residential treatment n=14; day treatment n=4) rated the engagement of all the youth who participated in the study (Table 4). Prime Workers reported working as child and youth workers (CYW) or in a similar capacity as clinicians. There were no statistically significant differences between residential treatment and day treatment Prime Workers in age, gender, household income, education, or ethnicity. However, day treatment Prime Workers were significantly more experienced than residential treatment Prime Workers both in terms of years employed in the mental health sector ($t(16) = -4.76, p < .001$) and years employed at their current location ($t(14) = -2.48, p < .05$). Despite these differences, there were no significant differences between residential treatment and day treatment Prime Workers in their ratings of youth engagement (Table 5). Therefore, all residential treatment and day treatment Prime Workers were included together in subsequent analyses.

**TABLE 4** Prime Worker Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Residential Treatment (n=14)</th>
<th>Day Treatment (n=4)</th>
<th>Total (n=18)</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, in years, M (SD)</td>
<td>26.0 (4.7)</td>
<td>30.8 (3.2)</td>
<td>27.1 (4.8)</td>
<td>$t(16) = -1.88 (0.079)$</td>
</tr>
<tr>
<td>Gender, n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>3 (21%)</td>
<td>2 (50%)</td>
<td>5 (28%)</td>
<td>$X^2 = 1.27 (.261)$</td>
</tr>
<tr>
<td>Females</td>
<td>11 (79%)</td>
<td>2 (50%)</td>
<td>13 (72%)</td>
<td></td>
</tr>
<tr>
<td>Work Experience, in years, M (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years employed in mental health sector***</td>
<td>3.5 (1.9)</td>
<td>9.0 (2.4)</td>
<td>4.7 (3.1)</td>
<td>$t(16) = -4.76 (&lt;.001)$</td>
</tr>
</tbody>
</table>
Years employed at current location*  
2.5 (2.3)  
5.6 (1.8)  
3.3 (2.5)  
t(14)=2.48 (.027)

Household Income, M (SD)  
$39,500 ($19,884.39)  
$55,000 ($25980.76)  
$43,076.92 ($21,336.44)  
t(11)=-1.12 (.289)

Education, n (%)  
College  
10 (77%)  
2 (50%)  
12 (67%)  
X² = .643 (.423)

University  
4 (29%)  
2 (50%)  
6 (33%)

Ethnicity, n (%)  
White  
12 (92%)  
3 (75%)  
15 (88%)  
X² = .883 (.347)

Hispanic  
1 (8%)  
1 (25%)  
2 (12%)

*p ≤ .05. **p ≤ .001. (two-tailed).

**TABLE 5** Prime Worker’s Ratings of Youth Engagement Scores

<table>
<thead>
<tr>
<th>Engagement Scale Subscale Scores</th>
<th>Residential Treatment</th>
<th>Day Treatment</th>
<th>Total</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (SD)</td>
<td>n=15</td>
<td>n=13</td>
<td>n=28</td>
<td></td>
</tr>
<tr>
<td>Youth Attitudes Toward Therapy</td>
<td>5.07 (1.22)</td>
<td>5.32 (1.22)</td>
<td>5.19 (1.20)</td>
<td>t(26)=-.554 (.584)</td>
</tr>
<tr>
<td>Bond with Staff</td>
<td>5.60 (0.71)</td>
<td>5.71 (0.89)</td>
<td>5.65 (0.78)</td>
<td>t(26)=-.378 (.708)</td>
</tr>
<tr>
<td>Youth Behavioural Contributions</td>
<td>5.39 (0.77)</td>
<td>5.17 (1.01)</td>
<td>5.29 (0.88)</td>
<td>t(26)=.646 (.524)</td>
</tr>
<tr>
<td>in Therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Engagement Score</td>
<td>5.38 (0.67)</td>
<td>5.44 (0.90)</td>
<td>5.41 (0.77)</td>
<td>t(26)=-.196 (.846)</td>
</tr>
</tbody>
</table>

No significant differences found (two-tailed).

Mean total scores and subscales are displayed in Table 6, for both youth and Prime Worker ratings of youth engagement. A paired-samples t-test revealed that there were no statistically significant differences in scores of youth engagement between youth self-ratings and
Prime Worker ratings for any of the subscales of the Engagement Scale (t(27)=.477, p=.637 for the total engagement score). Paired samples correlations are included in Table 7.

**TABLE 6** Youth and Prime Worker Ratings of Youth Engagement

<table>
<thead>
<tr>
<th>Engagement Scale Subscale Scores</th>
<th>Youth Ratings</th>
<th>Prime Worker Ratings</th>
<th>Test Statistic (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M (SD)</strong></td>
<td>n=28</td>
<td>n=28</td>
<td></td>
</tr>
<tr>
<td>Youth Attitudes Toward Therapy</td>
<td>5.48 (1.07)</td>
<td>5.19 (1.20)</td>
<td>t(27)=1.349 (.189)</td>
</tr>
<tr>
<td>Bond with Staff</td>
<td>5.37 (1.24)</td>
<td>5.65 (0.78)</td>
<td>t(27)=-1.317 (.199)</td>
</tr>
<tr>
<td>Youth Behavioural Contributions in Therapy</td>
<td>5.64 (1.09)</td>
<td>5.29 (0.88)</td>
<td>t(27)=1.896 (.069)</td>
</tr>
<tr>
<td>Total Engagement Score</td>
<td>5.48 (.99)</td>
<td>5.41 (0.77)</td>
<td>t(27)=.477 (.637)</td>
</tr>
</tbody>
</table>

No significant differences found (two-tailed).

**TABLE 7** Paired-Samples Correlations Between Youth and Prime Worker Ratings of Youth Engagement

<table>
<thead>
<tr>
<th>Engagement Scale Subscales</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n=28</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth Attitudes Toward Therapy</td>
<td>.49</td>
<td>.008</td>
</tr>
<tr>
<td>Bond with Staff</td>
<td>.45</td>
<td>.015</td>
</tr>
<tr>
<td>Youth Behavioural Contributions in Therapy</td>
<td>.50</td>
<td>.006</td>
</tr>
<tr>
<td>Total Engagement Score</td>
<td>.57</td>
<td>.001</td>
</tr>
</tbody>
</table>

*p ≤ .05. **p ≤.01. ***p ≤.001. (two-tailed).

The model consisted of IIP-32 Total scores and FAD General Functioning subscale scores regressed onto self-reported total youth engagement scores (Table 8). The data were free of multicollinearity (.10 < Tolerance, VIF < 10). Furthermore, the normal P-P plot and the regression standardized scatterplot (See Appendix C) both suggested the data met the assumption of linearity and homoscedasticity. Furthermore, there were no residual values above 3.3 or below
-3.3, and no other Mahalanobis' distance scores exceeded the critical chi-square value (13.82) for 2 independent variables. Therefore, the data met all assumptions of a linear multiple regression.

The results of the multiple regression analysis indicated that the model did not significantly predict total self-reported total youth engagement scores ($R^2=.194$, $F(2,24)=2.89$, $p=.075$). However, upon closer examination, this finding can be attributed to the FAD General Functioning subscale scores not making a significant contribution to the model. Surprisingly, these findings suggest that, for youth who participated in our study, interpersonal problems, but not family functioning, were a significant predictor of youth engagement in therapy. A change in one standard deviation of IIP-32 Total scores (SD=0.85) was accompanied by a -0.459 change in standard deviations of self-reported total youth engagement scores ($t(2,24)=-3.484$, $p=.030$).

<table>
<thead>
<tr>
<th>TABLE 8 Multiple Regression Standardized Coefficients (Predictor Variables Regressed onto Self-Reported Total Youth Engagement Scores)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beta Coefficient</strong></td>
</tr>
<tr>
<td>IIP-32 Total Scores</td>
</tr>
<tr>
<td>FAD General Functioning subscale scores</td>
</tr>
<tr>
<td><strong>Variance, %</strong></td>
</tr>
</tbody>
</table>

* $p \leq .05$. (two-tailed).

Since residential treatment youth scored in the clinical range on the FAD, indicating family dysfunction (Table 2), it was worth examining the relationship between engagement and family functioning among residential treatment youth separately from day treatment youth. Pearson’s r values were deemed more appropriate in this case as the small sample of only 15
youth would not accommodate the terms of a multiple regression. Using this approach, the association between FAD General Functioning subscale scores and self-reported total youth engagement scores began to approach statistical significance (Pearson’s $r = -.474$, $p = .087$); however, there was still no linear relationship between FAD General Functioning subscale scores and Prime Worker-reported total youth engagement scores (Pearson’s $r = -.098$, $p = .739$).

3.4 Discussion

3.4.1 Summary of Findings

The results revealed that both youth and Prime Workers rated youth as moderate in their level of engagement in therapy. Furthermore, Prime Worker and youth ratings did not significantly differ, suggesting that youth and prime worker ratings may reflect the level at which youth were actually engaging (i.e. a moderate level). However, the characteristics of youth differed across day treatment and residential treatment groups. As predicted, youth in residential treatment reported greater family dysfunction than youth in day treatment. Contrary to expectations, youth in residential treatment reported having fewer mental health diagnoses, and lower scores in conduct and hyperactivity problems, than day treatment youth. As we will discuss, a number of factors may explain these findings. As expected, youths’ interpersonal problems scores were significantly predictive of self-reported total youth engagement scores. Surprisingly, family functioning scores were not associated with total youth engagement.

It was possible that youth would underestimate their engagement behaviours in therapy since youth with EBD have been shown to underestimate their behaviours when completing self-report tools (Youngstrom, Findling, & Calabrese, 2004). It was also possible that, despite reassurance that Prime Workers would not see youth ratings, youth would distrust the Research Assistant and rate their engagement positively out of fear of repercussions for scoring low in
engagement. However, the finding that both youth and Prime Workers rated youth as moderate in their level of engagement in therapy, and that their ratings did not significantly differ, adds legitimacy to the youth ratings, and suggests that youth were actually engaging at a moderate level.

Contrary to expectations, significantly more day treatment youth reported having mental health diagnoses than residential treatment youth, and residential treatment youth reported low scores in conduct and hyperactivity problems. It is possible that the residential treatment youth lacked awareness of their own diagnoses because, as we have discussed, it is often the family or caregivers who help the youth develop insight regarding their condition(s) (Munson et al., 2011), and day treatment youth reported having more frequent contact with their primary caregivers than residential treatment youth, as one would expect, since day treatment youth typically live with their families while residential treatment youth do not. Moreover, it is also important to note that 40% of eligible youth did not participate in the study, and those who did were rated as moderate engagers. Therefore, it is possible that self-reported mental health diagnoses would be higher among those who did not participate (i.e. engage) in the study; although further research is required to confirm this hypothesis.

The results of the multiple regression analysis indicated that youths’ interpersonal problems scores were significantly predictive of self-reported total youth engagement scores. However, there was no association between family functioning and total youth engagement, an unexpected finding, since interpersonal functioning is generally thought to be greatly influenced by one’s relationships with family members (Bowlby, 1969, 1982, 1988; Young et al., 2013). One possible explanation is that, in addition to the aforementioned differences between residential and day treatment youth, residential treatment youth also scored in the clinical range.
on the FAD, while day treatment youth did not. When examining residential treatment youth separately from day treatment youth, the association between FAD General Functioning subscale scores and self-reported total youth engagement scores began to approach statistical significance at the 0.05 level, suggesting that a larger sample size may yield a statistically significant result. Another explanation is that the FAD general functioning subscale did not adequately assess aspects of family relationships that would have been relevant in the context of youth in therapy. For example, it may have been beneficial to control for youth who were under the guardianship of the Children’s Aid Society. Given that parental involvement in therapy is typically encouraged and thought to influence the success of the treatment (Lyman, Prentice-Dunn, & Gabel, 1989) and improve engagement (Kim, Munson, & McKay, 2012), it may prove beneficial in future research to control for the effect of parental involvement in their child’s therapy.

In addition to parental involvement, a number of other variables may explain the multiple regression results. As discussed, age, social status, ethnicity, gender, symptomatology, and time since admission have all been significantly associated with youth engagement in prior studies. Performing a hierarchical linear regression would allow us to control for these variables and conclude with greater certainty the associations between interpersonal problems, family functioning, and youth engagement. However, with more independent predictor variables, a larger sample than the present 28 youth is required to obtain statistical significance, should it exist.

3.4.2 Application to Theory

Bowlby (1988) posited that the client-therapist relationship is likely influenced by one’s interpersonal functioning, informed by early attachment experiences. There is evidence to suggest that clients’ quality of attachments in family and nonfamily relationships is associated
with their ability to form a relationship with the therapist (Gaston, 1991; Kokotovic & Tracey, 1990; Mallinckrodt, 1991). The present study contributes to this literature by demonstrating that interpersonal functioning is not only associated with the working alliance, but with therapeutic engagement as well. Since Bowlby (1969, 1982) believed early relationships with family would inform one’s internal working model of future relationships (i.e. interpersonal functioning), one would also expect family functioning to be predictive of therapeutic engagement. Although family functioning was not found to be associated with engagement in the present study, this result was likely due to the small sample size and differences between residential treatment and day treatment youth.

However, Rabley, Preyde, and Gharabaghi (2014) found that even some youth living in group homes classified as insecurely attached reported having positive relationships with their therapists which developed through continual interactions, open communication, and trust. This finding suggests that a positive relationship with a non-parental caregiver may promote resiliency in youth (Masten, 2006), and continual interactions, open communication, and trust in the therapeutic relationship may mediate the effect of negative family experiences on youth engagement. A number of protective mechanisms have been proposed to promote resiliency in the face of adversity that were not considered in this study: positive temperament, intelligence, and sense of humour, to name a few (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). It has also been suggested that adolescents’ capacity to regulate their emotions may impair their understanding of others’ feelings and produce negative cognitions in interpersonal interactions (Frith & Frith, 2003; Preyde et al., 2014). Therefore, investigators may want to consider the relationship between resiliency promoting factors, emotion regulation, and youth engagement in future studies.
3.4.3 Implications for Practice

These findings contribute to the minimal literature on youth engagement. Youth and Prime Worker ratings of youth engagement were not significantly different, suggesting that the Cunningham and colleagues (2009) engagement scale may prove useful in clinical settings. Engagement measures can be used to provide feedback to agency directors regarding practice that allows them to modify their approach to treating youth who respond differently in different treatment settings (Cunningham et al., 2009). Furthermore, such measures may also be used to assess client progress and inform decisions regarding treatment such that clients identified as low engagers are targeted for enhanced methods or alternative treatment plans (Tetley et al., 2011).

For example, several strategies have been developed to help motivate youth to engage in therapy. One approach involves minimizing negative anxiety-producing behaviours in parents and providing reinforcement for positive behaviours that can lead to positive treatment outcomes for youth (Podell & Kendall, 2011). To accomplish this task, some clinicians have utilized a cognitive behavioural therapy (CBT) approach to family-level interventions, in which parents learn the skills and coping strategies along with their child, and are encouraged to use them whenever they themselves feel anxious or distressed. The focus is on parental beliefs and expectations and modifying them to better cope with their child’s anxiety and provide context-appropriate responses to their child’s behaviour. Podell and Kendall (2011) found that parent attendance in the family condition significantly improved youth engagement and treatment outcomes compared to youth in the individual-CBT condition. However, family or caregiver involvement in therapy also raises confidentiality concerns for the youth. Oetzel and Scherer (2003) noted that, unless therapists regularly remind and discuss issues of confidentiality with their youth clients, confidentiality concerns may be an important barrier to engagement. For
interventions that do not involve family or caregiver participation, another approach to promoting engagement involves the use of paraprofessional staff. As discussed by Gopalan and colleagues (2010), paraprofessionals (i.e. parents who have children with mental health needs) use their personal experience with their own children to provide emotional support, mental health information, recreational activities, and referrals to other services. Peer youth specialists may also be integrated into therapy, who promote engagement more readily among youth, as they share a common age and understanding of one’s issues. Cohen (2006) argued that prescribing SSRIs in conjunction with the appropriate therapeutic intervention may help foster youth engagement and compliance with the treatment plan when treating therapy-resistant youth with severe depression.

3.4.4 Implications for Research

The next logical step for engagement researchers would be to focus on developing methods of targeting low engagers, and formulate strategies to engage these youth. If youths’ interpersonal functioning is important for youth engagement, how can clinicians develop youths’ interpersonal skills? Furthermore, in order for the Cunningham and colleagues (2009) engagement scale to be useful to clinicians, researchers need to determine the minimally clinically important difference (MCID; Chan, Man-Son-Hing, Molnar, & Laupacis, 2001) in engagement score that would indicate a different course of treatment is required. A score of 5 could be interpreted as mild engagement. If a score of 1=strongly disagree and 7=strongly agree, with a 4= Neither Agree or Disagree, a 5 could be considered a mild level of engagement. Is this score clinically different from a score of 6? Or 4? Oftentimes, the MCID is based on the subjective opinions of clinician experts; one approach to determining if a difference in scale scores is clinically important, is if it is associated with a difference that is noticeable to the
clinician (Man-Son-Hing et al., 2002). Applying this approach to the engagement scale, Prime Workers could be asked to rate a youth’s engagement in relation to other youth, and determine if this difference is clinically important.

However, before researchers can work on determining the MCID and engaging youth in therapy, researchers must work on engaging youth in research. Ironically, when it comes to studying youth engagement, the youth who are most interesting to the researcher are the ones who do not engage in therapy, and therefore, researchers should prepare themselves for the possibility that the youth will not engage in their study either. Since Prime Worker ratings of youth engagement were shown not to significantly differ from youth ratings, researchers could rely on Prime Worker ratings of youth engagement in the future. This approach would most certainly be viewed as more efficient, as it would eliminate the need for any youth input altogether. However, as researchers, engaging youth in research should be a priority, as it would be in keeping with the philosophy of client-centred therapy and agency initiatives to engage youth in a meaningful and voluntary way in the organization and community.

In the present study, at least one eligible youth was excluded because his CAS worker felt he would not respond well to the line of questioning. In recognition of the possibility that self-report tools may elicit sensitive responses from the youth, future engagement researchers may want to consider minimizing the use of self-report data. For example, the Child and Adolescent Functioning Assessment Scale (CAFAS; Hodges, 2000) and Brief Child and Family Phone Interview (BCFPI; Cunningham, Pettingill, Boyle, 2002) are two tools that can be used to compare the characteristics of youth who score high on engagement with those who score low on engagement. The CAFAS is completed by a clinician at admission and is used to measure youth functioning along eight domains: performance at home, school/work, and in the community (e.g.
delinquency), behaviour toward others, moods/emotions (e.g., anxiety, depression), self-harm behavior, substance use, and disordered thoughts. The BCFPI is completed by an intake worker at intake and provides a rating of symptom severity across six subscales that can be summed to create a total mental health score: (1) regulation of attention, impulsivity and activity, (2) cooperation with others, (3) conduct disorder, (4) separation anxiety from parents; (5) managing anxiety, and (6) managing mood. Youth would still be required to complete the engagement scale and thus, still play an active role in the study. However, the engagement scale is considerably less stress-inducing than other psychosocial measures, and since the engagement scale is short and simple, youth may be more inclined to participate than if they had to complete the scale in addition to the SDQ and other psychosocial measures, a process that usually took approximately 30 minutes. Furthermore, the CAFAS and BCFPI consist of clinical data that more accurately represents reality than self-reported SDQ scores, since youth may lack insight into their condition(s) (Rickwood & Braithwaite, 1994; Rickwood, Deane, Wilson, & Ciarrochi, 2005; Munson et al., 2011).

3.4.5 Limitations

The main limitations of the present study are the sample size, cross-sectional design, reliance on self-report data, and the possibility of social desirability in survey responses. A large effect size at power=.80 for $\alpha=.05$ would require a sample of 50 youth for a multiple regression with eight predictors (age, social status, ethnicity, gender, symptomatology, time since admission, interpersonal problems, family functioning; Cohen, 1992). A larger sample would have also allowed for additional constructs to be measured, such as resiliency promoting factors, and emotion regulation. While conducting the present study, obtaining consent was difficult in instances where youth under the age of 12 were in the care of the Children’s Aid Society. Three
youth could not be included in this study since their case workers could not be reached for consent. Future engagement researchers may want to ensure that agency directors remind case workers prior to data collection that they will be contacted by the Research Assistant to obtain consent for the youth. Furthermore, youth engagement has been found to be unstable and less consistent than adult engagement (Cunningham et al., 2009; Shirk & Karver, 2003). At the time of survey completion, it is also possible that events outside of therapy may have influenced participant responses (e.g. a bad day). A repeated-measures longitudinal design would allow researchers to explore the associations between youth engagement and the independent predictors with more certainty over time than a cross-sectional design. Relying on self-report data produced a number of problems. Missing data resulted when three Prime Workers did not report the length of time three youth were enrolled in treatment; this detail was not noticed by the Research Assistant until data entry. Furthermore, youth self-reported mental health diagnoses and conduct and hyperactivity scores were uncharacteristically low, possibly due to a youth tendency to underestimate their behaviours when completing self-report tools, a lack of insight into their condition(s), and/or social desirability in survey responses. Lastly, a nonsignificant difference between youth and Prime Worker ratings of youth engagement may reflect a mutual affinity between youth and Prime Worker, and not necessarily an accurate representation of youth engagement levels.

3.4.6 Conclusion

In conclusion, both Prime Workers and youth rated youth as moderate engagers. However, their ratings were limited to youth who participated in our study. Interpersonal problems were shown to be a significant predictor of youth engagement, and family functioning was approaching significance after controlling for differences in residential treatment and day
treatment youth. These findings contribute to the minimal literature on the level of youth engagement in residential and day treatment programs and may inform research and practice. In the future, the addition of sociodemographic variables (age, social status, ethnicity, gender, symptomatology, time since admission), resiliency promoting factors, and emotion regulation in the youth engagement model is warranted with a larger sample.
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Goodman, R., & Scott, S. (1999). Comparing the Strengths and Difficulties Questionnaire and


Mallinckrodt, B. (1991). Clients' representations of childhood emotional bonds with parents,


mental health beliefs. *Advances in Mental Health*, 3(3), 103-112.


Psychiatry, 38(9), 1081-1090.


Appendix A: Research Ethics Board Certificate

RESEARCH ETHICS BOARDS
Certification of Ethical Acceptability of Research
Involving Human Participants

APPROVAL PERIOD: December 10, 2013
EXPIRY DATE: December 10, 2014
REB: G
REB NUMBER: 13OC048
TYPE OF REVIEW: Full Board
PRINCIPAL INVESTIGATOR: Preyde, Michelle (mpreyde@uoguelph.ca)
DEPARTMENT: Family Relations & Applied Nutrition
SPONSOR(S): N/A
TITLE OF PROJECT: Therapeutic engagement with and psychosocial characteristics of adolescents with emotional and behavioural disorders

CHANGES:

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<th>Version</th>
<th>Change Summary</th>
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<td>Added a program. Item 10. “AND DAY” and item 12. DAY TREATMENT PROGRAM (ADOLESCENTS 12 TO 18 YEARS).</td>
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<td>Added a program. On application see item 10. “AND RESIDENTIAL AND DAY TREATMENT AT AVALON” was added, and item 12. AVALON RESIDENTIAL AND DAY TREATMENT (ADOLESCENTS 12 TO 18 YEARS) was added.</td>
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</table>

The members of the University of Guelph Research Ethics Board have examined the protocol which describes the participation of the human participants in the above-named research project and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement, 2nd Edition.

The REB requires that researchers:
- Adhere to the protocol as last reviewed and approved by the REB.
- Receive approval from the REB for any modifications before they can be implemented.
- Report any change in the source of funding.
- Report unexpected events or incidental findings to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants, and the continuation of the protocol.
- Are responsible for ascertaining and complying with all applicable legal and regulatory requirements with respect to consent and the protection of privacy of participants in the jurisdiction of the research project.

The Principal Investigator must:
• Ensure that the ethical guidelines and approvals of facilities or institutions involved in the research are obtained and filed with the REB prior to the initiation of any research protocols.

• Submit a Status Report to the REB upon completion of the project. If the research is a multi-year project, a status report must be submitted annually prior to the expiry date. Failure to submit an annual status report will lead to your study being suspended and potentially terminated.

The approval for this protocol terminates on the EXPIRY DATE, or the term of your appointment or employment at the University of Guelph whichever comes first.

Signature: Date: February 25, 2014

L. Kuczynski
Chair, Research Ethic Board-General
Appendix B: Cronbach Alpha Coefficients

<table>
<thead>
<tr>
<th>Cronbach’s alpha values</th>
<th>Number of items</th>
<th>α</th>
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<tbody>
<tr>
<td><strong>Engagement Scale Subscales</strong></td>
<td></td>
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<tr>
<td><em>Self-report version</em></td>
<td></td>
<td></td>
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<tr>
<td>Youth Attitudes Toward Therapy</td>
<td>5</td>
<td>0.76</td>
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<tr>
<td>Therapeutic Alliance</td>
<td>7</td>
<td>0.91</td>
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<td>Youth Behavioural Contributions in Therapy</td>
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<td><em>Prime-worker version</em></td>
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<tr>
<td><strong>SDQ Subscales</strong></td>
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<td>Emotional Symptoms</td>
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<tr>
<td>Conduct Problems</td>
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<td>0.69</td>
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<tr>
<td>Hyperactivity</td>
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<td>0.65</td>
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<tr>
<td>Peer Problems</td>
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<tr>
<td>Prosocial Behaviour</td>
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<tr>
<td><strong>IIP-32 Subscales</strong></td>
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<td></td>
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<td>Hard to be Sociable</td>
<td>4</td>
<td>0.91</td>
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<tr>
<td>Hard to be Assertive</td>
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<tr>
<td>Too Open</td>
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<tr>
<td>Too Caring</td>
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<td>0.77</td>
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<tr>
<td>Too Dependent</td>
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<td>0.76</td>
</tr>
<tr>
<td><strong>General Functioning Subscale of FAD</strong></td>
<td>12</td>
<td>0.90</td>
</tr>
</tbody>
</table>

* Nunnally (1978) suggested a Cronbach alpha of 0.80 or higher when conducting research in applied settings. However, since the present sample was small, we can expect the alpha coefficients to be unstable and unreliable (Charter, 2003). Many researchers have called for a sample size of at least n=300 to obtain an accurate estimate of the population coefficient alpha (Charter, 1999; Kline, 1986; Nunnally & Bernstein, 1994; Segall, 1994).
Appendix C: Normal P-Plot and Regression Standardized Scatterplot

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Youths' Self-Reported Engagement in Therapy

Regression Standardized Scatterplot
Dependent Variable: Youths' Self-Reported Engagement in Therapy