

THE DEVELOPMENT OF SELF IN RELATIONSHIPS: YOUTHS'
NARRATIVES OF CHANGE THROUGH A RESIDENTIAL,
WILDERNESS AND FAMILY THERAPY INTERVENTION

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Abstract

One exceptional intervention for youth struggling with addictive behaviour and mental health concerns is Pine River Institute (PRI), a program for youth that combines four distinct types of services: wilderness therapy, residential treatment, parent intervention, and aftercare services. The goal of this study was to capture the youth voice regarding their journey of change through the program. Specifically, I interviewed 10 youth at different stages of the program using a semi-structured interview guide and thematic analysis to analyze the transcripts. A model emerged from the interviews that delineates the core challenges youth faced before beginning the program, the changes they feel they had made, the elements of the program linked to these changes, as well as a description of how youth engaged with one of the core tasks of adolescence (identity formation in the context of relationships). The results of this study have implications for program development and program evaluation.

Keywords: adolescence; mental health problems; substance abuse; residential treatment;

wilderness therapy, family therapy; outcomes; mechanisms of change; qualitative analysis; identity; relationships

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Introduction

Each stage of the lifespan poses unique challenges for an individual, depending on a host of intrapersonal and interpersonal factors. In North America, adolescence appears to be a particularly challenging time for many individuals, as evidenced by the high prevalence of substance abuse, depression, and existential exploration during this developmental period. In fact, in a sample of individuals living in Ontario, youth ages 15 to 24 had the highest rates of psychiatric disorders, with one in four youth meeting the DSM criteria for a psychiatric disorder (Offord et al., 1996). Similarly, the rate of substance abuse in youth age 18 to 25 is over double the rate of substance abuse in adults (Dodge et al., 2009). As well, suicide continues to be one of the leading causes of death among Canadian youth (Archie, Kazemi, & Akhtar-Danesh, 2012), making it clear that many adolescents need support during this developmental period. The focus of the present study is to investigate the developmental processes of youth pursuing treatment for concurrent mental health issues and addiction, with a specific focus on their developing sense of self and experience in relationships.

The term “at-risk youth” has been used to describe young people who are struggling in many aspects of their lives. According to some estimates, one in four adolescents is “at-risk” for problem behaviour in four areas: delinquency, substance abuse, teen pregnancy, and school failure (Dryfoos, 1990). This term may also include youth who show externalizing behaviours (e.g., aggression), internalizing behaviours (e.g., depression, anxiety), and interpersonal difficulties (Tidwell & Garrett, 1994). Many of these youth come from economically disadvantaged backgrounds and may be involved in the child welfare, juvenile justice, and special education systems (Berzin, 2010). Others have used the term “struggling youth” to describe this population (e.g., Berzin, 2010; Furstenberg, 2006), and I prefer this term for a

number of reasons. I am concerned that the term “at-risk youth” pathologizes common issues in adolescence and gives these youth a global, permanent label. I believe the term “struggling” is more appropriate considering that many of these youth are struggling to make meaning from their life experiences and function in relationships; this dynamic term also suggests that these issues are a state rather than a trait. Through intervention, youth are able to accelerate their development in the areas they are struggling with until they are no longer “at-risk”. The nature of these interventions is discussed in detail below, after an introduction of the developmental-relational framework used to organize this research.

Theoretical Framework

Developmental-relational model. Instead of relying on psychiatric diagnoses to understand struggling youth, the framework for this research extends Lerner’s (1991) developmental contextual perspective to include a specific focus on close relationships, such as those with parents and peers. Lerner’s (1991) developmental contextual model (Appendix A) promotes understanding of the potential role of intervention in the development of struggling youth. More specific models, including Erikson’s (1959) stage model of psychosocial development and Plotkin’s (2008) model of ecocentric development, provide insight into specific areas of Lerner’s model. Central to Lerner’s model is the dynamic, reciprocal and bidirectional nature of interactions between the individual and the multiple contexts in which the individual is embedded (e.g., family, friends, school, community, culture, etc.). In this model, the parent and child transact with each other, as well as with the social network, school network, marriage network and work network (Lerner, 1991). When contemplating why youth experience difficulties and how intervention may influence change, I was particularly interested in the proximal factors such as the youth’s relationship with parents and peers.

Stages of psychosocial development. Erikson's (1959) stage model (Appendix B) identifies the core tasks associated with each stage of life, and provides more detail in the *child* sphere of Lerner's developmental contextual model. According to Erikson, the central task in adolescence is identity versus role confusion (Erikson, 1959). Identity is understood as the sense of self created through the complex interplay of individual biology, social dynamics, and response within a historic context (Erikson, 1968). Erikson also considered the social and cultural forces that shape identity and the narrative of one's own life story as the foundation of identity (Kroger, 2003). In resolving the task of identity versus role confusion, adolescents must recognize and be recognized by their community. This process involves adolescents cultivating a unique sense of self that feels authentic and is rooted in a deep connection with others.

Ecocentric development. Plotkin's (2008) model of ecocentric development (Appendix C) is useful to conceptualize cultural aspects that may either facilitate or obstruct the process of healthy adolescent development. This model represents one of the most distal contextual layers in Lerner's developmental-contextual model. Building on Erikson's theory of identity formation as the central task in adolescence, Plotkin (2008) divides adolescence into two distinct stages: early and late. In early adolescence, the central task is creating a secure and authentic social self, one that generates a balance of social acceptance and self-approval. In late adolescence, the central tasks are leaving home and beginning to develop the skills to make meaningful contributions to one's community (Plotkin, 2008).

In Plotkin's ecocentric wheel, the cultural context is the main factor influencing youth's ability to craft a secure and authentic social self. Plotkin distinguishes between two types of societies: ecocentric societies that have a connection to the natural world (i.e., many Indigenous cultures), and egocentric societies that are characterized by industrial capitalistic economies and

the corresponding environmental destruction (i.e., many Western countries). Since Western culture portrays maturity as individuation and separation from others, it is often difficult for youth in an egocentric society to develop true connectedness with others in their lives (Grusinger & Blatt, 1994). In ecocentric societies, adolescents may experience new emotions, new social roles and may struggle to find their place in the world, but they do not experience the mental health issues that are characteristic of egocentric societies. Due to the support of elders and the entire community, youth have access to emotional support and wisdom that help them navigate the task of identity formation in early adolescence (Plotkin, 2008). Only in egocentric societies, such as North America, is adolescence characterized by issues such as conforming completely to societal values or rebellion.

Adolescent Development

Identity. When adolescents have successfully met the task of identity versus role confusion, they are said to be identity-achieved (Erikson, 1968). Identity-achieved individuals show high levels of achievement motivation, self-esteem, moral reasoning, intimacy and an internal locus of control (Kroger, 2003). Studies have demonstrated that individuals who have achieved identity function well under stress, are lower in trait neuroticism, and are more likely to show secure patterns of attachment with family (Kroger, 2003). Given that success in identity formation is a core task in adolescence that facilitates other positive outcomes, it is important to understand the contextual factors that contribute to success at this task.

One distinguishing factor of families of identity-achieved teenagers is the parents' emphasis on both individuality and connectedness in family relationships (Campbell, Adams & Dobson, 1984). It has been suggested that individuality and connectedness to others develop in a dialectic and transactional manner, such that higher levels of self-development make higher

levels of connectedness possible and vice versa (Grusinger & Blatt, 1994). In this way, the development of a mature sense of self is contingent on the development of healthy and meaningful relationships in an adolescent's life.

When adolescents are struggling with role confusion, they may experience an identity crisis, which is the inability to integrate aspects of the self into a coherent and acceptable sense of self associated with specific roles, relationships, and social commitments (Erikson, 1968). A large number of youth struggle with identity issues, which have been linked to other negative outcomes. For example, in a sample of college students, 34% qualified as having clinically significant identity distress (Hernandez, Montgomery, & Kurtines, 2006). Moreover, female students who met criteria for an Identity Disorder showed significantly more externalizing symptoms and antisocial behaviours than those who did not. Male students with identity issues experienced significantly more internalizing symptoms such as anxiety, depression, peer problems, and social withdrawal (Hernandez et al., 2006). The factors associated with the development of a healthy sense of identity, including parental warmth, involvement, and the tolerance of expressions of individuality, are also associated with healthy parent-adolescent relationships, lending evidence to fact that these processes are interrelated (Perosa, Perosa, & Tam, 1996).

Relationships with parents. It has been argued that healthy development depends on healthy relationships (Pepler, Craig, Jiang, & Connolly, 2011) so it is essential to understand how an authentic sense of self develops in the context of positive relationships. One of the central contexts for development is the parent-adolescent relationship; research has documented the effects of both positive and negative relationships on adolescent well-being. In brief, adolescents who report feeling close to their parents score higher than those with low closeness

on measures of psychosocial development (e.g., self-reliance and behavioural competence), psychological well-being (e.g. self-esteem) and school performance (Steinberg & Silk, 2002). Adolescents with high closeness to parents also score lower than those with low closeness on measures of psychological/social problems, such as drug use, depression, and antisocial behaviour (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994; Garber et al., 1997; Ge, Best, Conger, & Simons, 1996; Steinberg & Silk, 2002). Close relationships with parents have also been shown to buffer the effects of negative life events on adolescent mental health. One study using 378 sibling pairs who participated in two waves of the Nonshared Environment in Adolescent Development Project showed that closeness with mothers moderated the effects of both personal and family negative life events on subsequent depressive symptoms (Ge, Natsuaki, Neiderhiser, & Reiss, 2009). Allen & Hauser (1996) suggest that establishing autonomy and relatedness with parents is an attachment-related developmental task for adolescents and that serious issues occur when these developmental tasks are not met. Using longitudinal data, Allen and colleagues discovered that difficulties establishing autonomy and relatedness with parents were related to depression and externalizing behaviours in adolescents (Allen et al., 1994). Specifically, adolescents whose parents were intrusive or overprotective have difficulty individuating from them and establishing autonomy, leading to depression, anxiety, and reduced social competence (Boykin, McElhaney & Allen, 2001). Issues in establishing relatedness with parents are equally detrimental to adolescent development. High levels of conflict in the parent-adolescent relationship are deleterious for adolescent development, relationships, and future adjustment (Laursen & Collins 1994). Gavazzi and colleagues studied a sample of 2,646 court-involved adolescents to examine the link between disruptive family processes, mental health (internalizing and externalizing problems), and substance abuse issues. They found that disrupted

family processes were significantly associated with higher levels of internalizing and externalizing problems, and substance abuse in both male and female youth (Gavazzi, Lim, Yarcheck, Bostic, & Scheer, 2008). Furthermore, adolescents whose parents were categorized in the harsh parenting group reported the highest levels of loneliness and interpersonal problems (Scharf, Wiseman & Farah, 2011). A lack of trusted adults at home and school was associated with increased risk for making a past-year suicide attempt, above and beyond the effects of depressive symptoms and demographic factors (Pisani et al., 2012). Taken together, this research highlights the importance of the parent-adolescent relationship as a major context for adolescent development and the mental health issues that emerge when there are relationship issues between parents and youth.

Relationships with peers. Relationships with peers also serve as an important context for adolescent development and may either help or hinder youth in meeting developmental goals. Experiences with friends appear to moderate social adaptation and academic competence and provide a prototype for later close relationships (Cairns & Cairns, 1994; Furman & Wehner, 1994; Collins & Steinberg, 2006). Poor quality adolescent friendships, such as those low in supportiveness and intimacy, are associated with loneliness, depression, and decreases in achievement in school and work settings (Hartup, 1996; Collins, & Steinberg, 2006). Although the direction of causality has yet to be determined, having a history of highly conflictual relationships with peers has been linked to antisocial behaviour, social withdrawal, victimization, lack of cooperation, shyness, and depression (Abecassis, Hartup, Haselager, Scholte, & van Lieshout, 2002). Furman & Shaffer (2003) suggest that romantic relationships are also connected to key processes of identity formation during adolescence, although more research is needed to fully explore how relationships with peers and romantic partners facilitate healthy identity

formation.

Interventions for Struggling Youth

Pine River Institute. Pine River Institute (PRI) is a residential intervention program for youth struggling with the core developmental tasks of adolescence. Located in Ontario, Canada, PRI combines four distinct types of services into one program: wilderness therapy, residential treatment, parent intervention, and aftercare services. The wilderness therapy component occurs during the first two months of the program, when youths live in a wilderness environment in Algonquin Park camping in tents or yurts. Days are spent hiking, canoeing, portaging, and engaging in other physical activities. Youth and staff work together to prepare each meal and eat collectively. Personal growth is facilitated through group initiatives, group therapy, individual therapy, journaling, and other therapeutic activities. After youth graduate from the wilderness, the next eight to ten months are spent at the residential treatment campus completing high school credits, living collectively and participating in individual and group therapy. An important aspect of the program is that parent involvement is required. In the parent intervention component, parents meet individually with staff and in groups to learn how to respond to their adolescent in developmentally appropriate ways. In the final phase of the program, youth are re-integrated into the community with the support of aftercare services. Since Pine River is the only organization in Canada that combines these four types of services, research is necessary to document the impact of the program on youth and their families.

Residential treatment. Residential treatment refers to any out-of-home 24-hour facility that offers mental health services and provides intense intervention for youth who are greatly struggling (Hair, 2005). These programs have multi-disciplinary teams that often make therapeutic use of the daily living milieu, but are less restrictive than inpatient psychiatric units

(Hair, 2005). The term “residential treatment” is an umbrella term for a host of programs including substance abuse treatment centres, locked units for sexual offenders, family-style residential group homes, residential schools, and therapeutic boarding schools (Lee, 2008). Butler and McPherson (2007) suggest that a program can be considered residential treatment if it involves the following components: (1) a therapeutic milieu, (2) a multidisciplinary core team, (3) deliberate client supervision, (4) intense staff supervision and training, and (5) consistent clinical/administrative oversight.

The effectiveness of residential treatment programs has been linked to their ability to provide a structured and nurturing environment with predictable, consistent expectations that are designed to help shape healthier behaviours and emotional responses (Rosen, 1998). Gallagher and Green (2013) interviewed 16 adolescents who had been in residential care in the United Kingdom and found that these youth had positive outcomes in emotional and behavioural well being, physical health, accommodation, absence of early parenthood, and substance use. When the same youths were asked about the experience of being in residential care, they often spoke positively about their experiences, particularly their relationships with staff, life story work, leisure activities, and the contact they had with staff after leaving the program (Gallagher & Green, 2012). Specifically, residential care has been shown to reduce internalizing symptoms such as depression and anxiety (Connor, Miller, Cunningham, & Melloni, 2002), as well as high-risk behaviours such as suicidality (Lyons, Terry, Martinovich, Peterson, & Bouska, 2001). In a meta-analysis of experimental and quasi-experimental studies conducted from 1990-2005, Knorth, Harder, Zandberg, & Kendrick (2008) found that the most significant outcomes of residential care were a reduction in externalizing problems with an average effect size of .60, as well as a reduction in internalized problems with an average effect size of .45.

Family interventions. The residential treatment literature highlights the importance of including families, especially parents, when working with struggling adolescents. In a meta-analysis of eight treatment studies of adolescent conduct disorder, Woolfenden, Williams, and Peat (2002) found that family-based treatments including functional family therapy, multi-systemic therapy, and treatment foster care are more effective than the usual intervention of probation or incarceration. Specifically, they found that participating in a family-based intervention resulted in a significant reduction in time spent in institutions such as prison and detention centers and the chance of being re-arrested in this group of juvenile delinquents in the United States (Woolfenden et al., 2002). In another meta-analysis, Latimer (2001) reviewed 35 experimental studies and found that family intervention was much more effective at reducing recidivism compared to non-familial interventions. Latimer (2001) also noted that there were methodological issues in many of the studies and that studies with the more rigorous experimental designs had the smallest post treatment effect sizes, indicating the need for more research on this topic.

Family interventions have been shown to be effective for a wide range of adolescent issues, including antisocial behaviour, family functioning, and substance use. In a meta-analysis of seven studies of the effectiveness of family therapy compared to alternative therapies for adolescent drug abuse, Stanton and Shadish (1997) found an effect size of .39 for reduced drug use at follow-up. This finding indicates that the average youth receiving family therapy was more successful at reducing their drug use than 66% of youths receiving other forms of treatment. In three systematic reviews covering 13 controlled trials of family therapy for adolescent drug abuse, Liddle and colleagues concluded that family therapy was more effective than routine individual or group psychotherapies in engaging and retaining youth in therapy,

reducing drug use, and improving psychological, educational, and family adjustment (Liddle, 2004; Ozechowski and Liddle, 2000; Rowe and Liddle, 2003).

Wilderness therapy. Wilderness therapy, a type of residential treatment, has been proposed as a particularly effective intervention for adolescents struggling with emotional and behavioural issues (Russell, 2001). The most parsimonious definition of wilderness therapy is the use of traditional counselling techniques and adventure-based activities in an outdoor setting (Davis-Berman & Berman, 1994). Wilderness therapy falls under the general umbrella of wilderness experience programs, which are outdoor programs for facilitating personal growth, rehabilitation, education and leadership (Friese, Hendee & Kinziger, 1998). However, compared to other wilderness experience programs, wilderness therapy is led by qualified professionals and includes traditional therapy techniques with clinical assessments, individual treatment plans, individual and group psychotherapy, and formal assessments of participants' progress (Klinger, 2009).

In a meta-analysis, Wilson & Lipsey (2000) reported that increased self-esteem was the most significant outcome of wilderness therapy programs, with an effect size of 0.54. There was also an increase in interpersonal adjustment and social skills ($d=0.28$), as well as an increase in school adjustment ($d=0.30$). Other significant outcomes included behavioural change, decreased substance use and a more internal locus of control. Youth who participated in a wilderness therapy program showed a decrease in antisocial behaviour, with an overall mean effect size of 0.18 across ten studies (Wilson & Lipsey, 2000). There are, however, a number of methodological issues associated with this research. Notably, there were major differences between the programs included in the meta-analysis, with differences in program length, issues the youth were facing, and structure of the program. More research is needed to gain a deeper

understanding of how aspects of the program relate to outcomes, and to study the mechanisms of change (Hill, 2007).

Current Study and Objectives

This study aims to add to the literature on the outcomes and mechanisms of change in residential treatment by asking youth about these aspects of treatment. Due to the exploratory nature of this work, a qualitative design was chosen to investigate the changes youth make during their participation in Pine River's program.

In this project, two main questions were addressed:

1. What are the main changes youths make due to their experiences in Pine River's program?
2. What elements of the program do youth perceive as responsible for those changes?

Methods

Locating my subjectivity

The first step in this project was to analyze my own subjectivity and locate the aspects of myself that influenced this research. I am a young, educated, white woman who is privileged enough to be pursuing graduate work. Since I am older than many of the adolescents I work with, my age confers an unequal distribution of power. Being a cis-gendered female-identified person may benefit me in some contexts, yet it also causes me to experience oppression in other contexts. In our culture, being a person of European descent also influences the power I have in relationships, leading me to dedicate energy into decolonizing my relationships and being aware of my privilege.

There are aspects of my biography that also bear on my work in the field of wilderness and residential therapy. As an adolescent, I participated in a wilderness therapy program that was extremely influential in my development as a person. I later became a staff member in this program and witnessed the major changes that wilderness therapy can bring about in a young person's life. Thus, one of my assumptions is that wilderness therapy is an effective way to intervene in the lives of youth who are struggling with substance abuse and family issues. I have worked on bracketing this assumption and being open to hearing a diversity of experiences.

Another important part of myself is my identity as a feminist, environmentalist and advocate for social justice. I believe that humans cannot achieve wellness without connection with others and connection with the earth. I see how industrialized capitalism has made these connections more difficult and believe that solutions to human suffering must be implemented at the community and governmental level. So, while I believe that wilderness and residential therapy may be effective at shifting intrapersonal and family dynamics, I acknowledge from the

outset that this intervention is incomplete without addressing the larger systemic variables that may be responsible for personal difficulties.

Program and Participant Characteristics

Pine River Institute began in 2006 as a program for youth struggling with substance abuse and mental health issues. The average age of youths entering the program is 16.4 years and the male to female ratio is 2:1 (Pine River Institute, 2011). More than half of youths admitted to PRI have been diagnosed with a mental health problem, the most common being depression (24%), bipolar disorder (20%) and attention deficit hyperactivity disorder (17%). The sample of ten youths who participated in this study had similar demographic characteristics to the group of youths at Pine River. For example, seven males and three females were interviewed, and all ten youth were white. The ages of participants in this study ranged from 14 to 18 years old.

At its inception, Pine River was a privately funded program costing parents \$448 per day for each child, with the program taking an average of 12 months to complete (Pine River Institute, 2011). Due to the cost, the program primarily served youth from a high socioeconomic background. In 2010, the program received federal and provincial funding, bringing the cost for families down to \$625 per month (Pine River Institute, 2011). Due to the lowered cost, the program currently serves youth from a wider socioeconomic range, although the youth still tend to be from families towards the higher end of socioeconomic spectrum.

A total of ten youths were interviewed for this study and an attempt was made to sample youths who had been in the program for varying lengths of time. There are five stages of the program: Stage 1 is the wilderness phase in Algonquin Park, stages 2 - 4 are on the Pine River campus and Stage 5 involves the provision of aftercare services. At any given time, there are approximately 30 students enrolled in the first four stages of the program. Youths from Stages 2,

3 and 4 at the Pine River campus were selected to participate in the interview for two main reasons. First, these youths had been in the program long enough to reflect on the changes they had made (unlike those in Stage 1). The second reason was logistical, as those in Stage 5 were living at home and could be living anywhere across the province. To obtain a relatively representative sample, participants were chosen across the stages and reflected the ratio of boys to girls in the program. As such, three girls and seven boys were interviewed. The sample included two participants from Stage 2, four from Stage 3 and four from Stage 4.

Procedure

Ethics approval for this study was obtained from the York University Ethics Review Board.

The first step in developing this study was to meet with the clinical staff to discuss the project and receive feedback on the research goals and procedures. After the research questions and methods were mutually decided upon, parents were informed that a research project would be taking place. At the annual parental retreat workshop, the director of research introduced me to the parents and explained that we would like to interview youth about their experiences in the program. I then attended two bi-weekly parent groups to explain the project to parents in more detail, give them opportunity to ask questions, and invite them to sign the consent forms for their child's potential participation (see Appendix D for a copy of the parent consent form). Since not all parents attend the parent groups each week, a copy of the consent form was emailed to the parents who were not present by the administrative staff at Pine River. These parents signed the consent form, scanned it, and sent it back to the Pine River office. Of the 34 students enrolled in the program at the time, parental consent was obtained for 24 youth (71%). The 10 youth who participated in this study were drawn from this group of youth with parental consent.

During a community meeting at the campus, the executive director introduced me to all staff and students. To build rapport with the staff and students, I began spending a few days a week at the campus, participating in activities with the youth and staff. For example, I participated in gym class each morning, did work with students during the academic period, ate lunch with the staff and students, and participated in some of the group therapy sessions. This time was essential in developing trusting relationships with the youth and staff, as well as getting a deeper understanding of the program. During daily activities, six male youths approached me about the study and mentioned that they were interested in being interviewed. I interviewed all six of these youths. For the remaining four participants, I selected four girls who represented diverse stages in the program to ensure I had an appropriate number of boys and girls from all three stages of the on-campus program. Of the youths I invited to participate, one female youth declined, and a male youth who was interested in the study was chosen instead.

Once a youth expressed a willingness to participate and indicated when they¹ would like to do the interview, a private space on the campus was arranged. The spaces used for interviews included a therapist's office, the parent cabin, the art cabin, or outside in the field, depending on the weather and what space was available at the time. In all cases, the interviews took place in a location where the interview would not be interrupted and where others could not overhear the conversation, yet was no more than a hundred meters from the main building for safety considerations. Interviews lasted between 30 minutes and two hours, with the average interview being just over an hour.

¹ The gender of the speaker is intentionally not included for confidentiality. The terms 'they', 'them' or 'themselves' has been adopted for this reason, as well as to be inclusive of individuals of all gendered expressions including but not limited to transsexual, intersexed and questioning individuals.

All youths were given a participant consent form at the beginning of the interview (see Appendix E). Youths were given the opportunity to ask any questions they had about the study. It was made very clear to the youths that choosing not to participate in the study would not jeopardize their relationships with staff or the services they received at Pine River. It was also explained that if they chose to participate, every effort would be made to de-identify their responses; however, it is possible that individuals who know them well may recognize quotations as belonging to a given youth.

Interviews were recorded on a voice recorder and the audio files were transferred to a password-protected computer. Files were saved in cloud software (Dropbox) and the original file was deleted from the audio recorder. All interviews were transcribed into word documents.

Measures

The interview format was semi-structured to give youths the opportunity to discuss the aspects of themselves and their experiences that they considered most important. The full interview guide can be found in Appendix F.

Analyses

Thematic analysis was chosen to analyze the transcripts. Thematic analysis is a flexible and accessible approach for identifying, analyzing, and reporting patterns within data (Braun & Clarke, 2006). This method was used in an inductive manner, identifying themes that are linked to the data themselves as opposed to findings from previous research (Braun & Clarke, 2006). To be true to an inductive approach, however, the researcher should not engage heavily with the literature prior to analysis. Given that I had already completed the literature review and had previous experiences with wilderness therapy, a purely inductive approach was not possible. In the analysis phase, I worked on bracketing my assumptions from previous reading, research, and my own experiences to allow the themes to emerge from the youths' voices. I was very careful to

stick closely to the language of the participants when creating categories and limit the amount of initial interpretation. The decision to use a descriptive approach as opposed to a more interpretive approach was made before beginning the analysis. Due to the lack of research on the outcomes of treatment in the eyes of participants, it was felt that a descriptive approach would better capture the range of participant experiences in their own words. In addition, one of the goals of this research is to help program developers and clinicians have a better understanding of which outcomes and mechanisms are most important to target and measure, and it was thought that a descriptive analysis would lend itself best to this goal.

Consistent with the tradition of open coding often used in qualitative research, I identified units of meaning that allowed me to parse the text into properties (Glaser & Strauss, 1967). These units of meaning could be one word, a phrase or sometimes a number of sentences. After identifying a new unit of meaning, I engaged in the process of constant comparison with the preceding cases. If the new unit was conceptually similar to a previous unit of meaning, it would be placed in the same category; whereas if the unit was conceptually distinct, it would stand alone as its own category.

In the first phase of the analysis, all ten interviews were coded using the NVivo software program and a total of 112 categories were identified, each of them containing one or more properties. In the second phase, all ten interviews were re-coded to identify any additional examples of existing categories, as well as to identify new properties. After the second phase of analysis, there was a total of 142 categories. In the third stage of analysis, each category was examined to ensure it was internally consistent (i.e., the properties within the category were conceptually similar), as well as to ensure the category was conceptually distinct from other categories. This analysis resulted in some categories being merged, modified, or deleted and 134

categories remained. All categories that contained properties from only one participant were excluded in the final model.

The next step was sorting all 134 categories into domains and main categories. A total of four domains emerged from youths' descriptions of their experiences: a) Before Pine River, b) After Pine River, c) The development of self-in-relationships, and d) Mechanisms of change. Categories were sorted into one of these domains and were further sorted into main categories and sub-categories within these domains. I worked with a second coder (my graduate supervisor) to arrive at consensus on the structure of domains, categories, and subcategories.

Results

The main goals of this study were to examine the changes youth felt they had made in the program, as well as to identify the elements of the program youth considered to be important in their process of change. Participant responses were categorized under four domains: *Before Pine River*, *changes made in the program*, *the development of self in relationships*, and *mechanisms of change (how)*. The associations among these four domains, along with the main categories in each domain, are depicted in Figure 1. The *How* domain illustrates the mechanisms of change that helped youth make the transformations mentioned in the *changes* categories, whereas the development of self in relationships represents both a mechanism of change that may underlie other changes made, as well as a domain of outcomes.

The *Before* domain comprised six main categories, as well as a number of subcategories. The main category, *Relationships*, in the *Before* domain was the only category with divided categories for parent and peer relationships, each of which had their own sub-categories. The *How* and *Changes* domains comprised main categories and their subcategories, which can be seen in the figures at the beginning of each section (Figures 2, 3, 4 and 5). The *Development of Self* domain comprised only main categories, as can be seen in Figure 3. A table summarizing the frequency of quotations in each category, as well as the number of participants who made statements belonging to each category can be seen in Appendix G.

Before Pine River

The overall theme for the participants' state before coming to Pine River related to their struggles in most aspects of their lives, including: family relationships, peer relationships, school, as well as their emotional and physical health. For example, when asked to describe themselves before coming to Pine River, one youth responded, "Umm. I don't know. Struggling. Struggling

with everything. Struggling with relationships, with school with uhh. Hobbies. I wasn't really doing anything. Umm... Yeah. So. Umm. Struggling". The struggles described by these youths before they entered the program fell into six main categories: relationships, mental health problems, substance abuse, thought patterns, behaviours, and developmental challenges (all of which were often interconnected). These six main categories with their sub-categories are depicted in Figure 2 and discussed below, in order of most frequently to least frequently mentioned.

Experiences in relationships. Youths described their experiences in relationships as the single most significant concern in their lives before coming to Pine River, with all 10 youth making comments belonging to the main category of relationships. Participants described their relationships as unhealthy and distant, and they experienced a significant amount of loneliness before beginning the program. This main category of *Experiences in relationships* is made up of the subcategories unhealthy relationships, distant relationships and loneliness, as well as the categories peer relationships and parent relationships, each of which comprised their own sub-categories.

Unhealthy relationships. This category comprised of comments made by eight youths. Relationships with both family members and with peers were described as overwhelmingly negative and characterized by unhealthy patterns of interaction. That is, youths described these relationships as being: rejecting, abusive, isolating, frustrating, disconnected, manipulative, and involving a lot of conflict. In terms of relationships with parents, many participants characterized their relationships as unhealthy due to bi-directional problems that involved both their behaviour, as well as their parents' behaviour. The first quotation below represents problems that participants have identified with their own behaviour, whereas the second quotation involves

problematic behavioural from a parental figure. The first youth described their relationship with their parents as "...pretty bad. They were fed up with me, I was screaming at them. Umm. I was threatening my dad when I was really angry. I was punching holes in walls". The second youth recounted:

Things were getting worse and worse with my family. Got the point where almost every single time I saw [family member], there was a fight. Umm, it got more physical by this age...By the time I was sixteen it was when it was at it's worst. He was just very angry. Very very angry. And disappointed at me. And it just hurt him a lot, and he has some shit going on with his own life too. And umm by then things were bad.

In addition, half of the youths interviewed described their relationships with peers as unhealthy before coming to Pine River. For example, one youth talked about a negative relationship with their best friend:

And he knew I was the person that didn't want to be home. So I was the type of friend and he's like 'he's not going anywhere' so he kind of treated me shitty. 'He's not going to go anywhere. He needs me.' So, that's how I was treated by him. He was my best friend, unfortunately.

Another youth mentioned that they felt like they "never really had any really good relationships" because "most of my relationships were around using". When asked what their friendships were like before they entered the program, another youth replied, "They were... uhh really disconnected. We didn't really share any common things besides doing drugs. And partying and hooking up with people".

Distant relationships. The second most frequent way of describing their relationships was "distant", in that participants mentioned that they did not feel close to the people in their lives. In total, this category of distant relationships was mentioned by eight youths. This is evident in the following conversation:

R²: Did you have any friends or neighbours or people in your life that you were kind of connected with or not so much?

P: I pretty much pushed everyone in my family away, and in terms of friends I had people I hung out with but looking back on it now I wouldn't call them my friends almost. Um, so like I didn't really have a connection with anyone, no.

Another youth described their distant relationship with their father:

Umm, my dad would always say that I slipped away to a place in my mind where he couldn't reach me. Which is something that sticks with me a lot, because he would like sit on my bed and try to talk to me about what was going on, and stare into my eyes. And my eyes would just be hollow. I wouldn't be listening, I wouldn't be thinking, I would just be completely gone. I wouldn't really focus on it. I don't know, I just didn't want to do anything.

Loneliness. The third most common relationship problem was loneliness, with half of the youths reporting that they felt very lonely before entering the program. For example, when one youth was asked to describe themselves before coming to Pine River, they replied “Um, just a sad emotional wreck probably. Just a um, lonely sad emotional wreck that didn't have any social skills”.

Trauma and abuse. Four participants shared stories of the trauma and abuse they had experienced in relationships with both friends and family members. One youth shared their experience of having “quite a few physical fights with my [family member]. Lots of like verbal stuff, but it got more physical as I got older and older. Even just like beating the shit out of me sometimes”. Another participant described a close friendship as “really bad for six years and there's kind of a lot of abusive stuff in there as well”.

Peer relationships. Youths' relationships with peers were an important part of their lives before entering the program. Some participants discussed positive friendships and romantic relationships, although most described their peer relationships as decidedly negative before entering the program. These negative aspects included wanting acceptance from peers, being

² In all quotations, the letter R is used to signify that the researcher is speaking, whereas the letter P signifies that the participant is speaking.

bullied and engaging in bullying behaviour, having few friends, and having difficulties setting boundaries with peers.

Wanted acceptance. A defining feature of the participants' peer relationships was that they wanted acceptance from their peers and this caused them to behave in ways that were sometimes counter to their authenticity. This category was mentioned by five youths. One youth described how they changed "everything I was doing from the way I dressed to the way I talked" to gain the acceptance of their peers. Another youth discussed their journey trying to connect with peers:

We'd pretty much just get drunk all the time and go to parties and give head to people that we didn't know... Actually it sounds like really degrading and disrespectful towards us and that's pretty much what it was. People looked at us terribly, like we were a bunch of sloos that would just walk into a party. And it felt really shitty, but it felt like I belonged somewhere, to like a bunch of girls that I thought really cared about me, but they didn't.

Bullying. Three out of ten youths discussed both being bullied and engaging in bullying behaviour towards peers. One youth shared their experiences of being bullied severely throughout elementary school and then later engaging in bullying behaviour in high school. This youth explains:

I bullied kids so badly. Like I would scare the shit out of kids. There were three kids in my class where they couldn't even get picked up some days, like they had to have their parents pick them up from their locker, because they were scared I was going to kill them. And it was like, it got really bad. I was just such a terrible person and [R: because you were scared of being picked on?]. Yeah I was scared shitless. I never would have admitted that at the time, but I was scared to death that something would happen to me if I didn't do that. That's what I experienced before hand.

Romantic relationships. The third most prevalent peer relationship category was romantic relationships, in which participants reported having both positive and negative experiences. This category comprised comments made by three youths. When discussing individuals in their lives whom they trusted, one youth said, "I trusted my girlfriend and I think that it's deserved as

well. Because she was umm, helpful, when talking through things”. However, another youth explained how the problems in their family relationships manifested in romantic relationships:

I felt like I didn't want to be around my family and that I couldn't trust them. So then I started getting like really bad trust issues, and anxiety and stuff like that. Umm then it started playing with my relationships with like boyfriends, and their families and stuff, where I would try and make them my family, so I would be really into that relationship and I'd always be at their house hanging out, like trying to take care of them almost. And I would treat my boyfriend like royalty and kind of get kicked around. So that felt really crappy.

Few friends. Four out of ten youths expressed that they felt as though they didn't have many close friends in their lives. One youth said “so, I kind of just felt like I didn't have anybody to really confide in. So nobody was in my trust circle”. Another youth mentioned, “I didn't have a lot of friends though because when I dropped out of school I didn't really have anything in common with people in school any more, so, everyone just ...kept moving on”.

Positive relationships. Three youths, however, talked about positive experiences they had with peers before entering the program. For example, one youth was asked if there were any relationships where they felt they could be themselves and responded, “Umm, I guess I could say that with my friend [name], who I went out with, I could be gross and wearing weird clothes that didn't match and were awful ... she didn't really give a shit, you know?”

Lack of boundaries. Finally, two youths described the difficulty they had with setting boundaries in their peer relationships. When asked how their friends would describe them before coming to Pine River, one youth replied, “they'd probably describe me as the [person] who'd do anything...which would feel really crappy, because like I do have boundaries, knowing when my limit is, but back home I didn't ... I never really knew when to say no”.

Family relationships. In describing their family relationships before coming to Pine River, participants mentioned not trusting their families, taking things their families did for them for granted, and being defiant towards parents.

Taking things for granted. The most common issue in family relationships was the youths taking things in their lives for granted before they entered the program. This category was mentioned by four youths. One youth described this lack of gratitude as being a hallmark of their relationship with their parents:

Just in the household I was very narcissistic. Just not really care. In a way. In a way I still love them, but in another way I didn't show it at all and I was just really rude and expected them to do things for me. I definitely had a puppet relationship with my mom. I expected her to do all these things for me, all these errands, and I never did anything for her. I rarely even said thank you, I just expected all these things from her. I was really rude. I never appreciated anything they did for me or said to me.

Didn't trust family. Four youths admitted that they did not trust their families before they came to Pine River. For example, one participant reflected, "I didn't really trust my family, which was wrong. I should have. I didn't trust my parents". Some youths, however, had very good reasons not to trust members of their family, often because these family members had abused them, whereas others who mistrusted their families did not experience abuse.

Defiance. Lastly, three youths described their behaviour as defiant towards their parents. When asked how their parents would have described them, one youth mentioned, "maybe like apathy. That probably came off to them. Definitely like unmotivated, uhh, very oppositional, never agree with anything they said".

Mental health problems. This main category of *mental health problems*, endorsed by all ten youth, includes youth feeling sad and depressed, having low self-esteem/self confidence, having difficulty regulating their emotion, engaging in self-harm, feeling anxious, carrying

shame and guilt, suppressing their emotions and experiencing physical health problems due to their mental health problems.

Sad and depressed. The most common mental health issue was feeling sad or depressed most of the time. This was mentioned by seven youths. For example, when asked to describe themselves before entering the program, one youth responded, “probably sad, I was really sad”. When asked what things were like before Pine River, another youth said, “first, I really struggled with depression, I actually got hospitalized three different times for suicidal thoughts and like, having a plan. It was a rough time”. This subcategory represents one third of the total mental health problems discussed by the participants.

Low self-esteem/ self-confidence. The second most frequently mentioned mental health issue was having low self-confidence or low self-esteem. This was mentioned by seven youths.

In the words of one youth:

I came here and I truly believed that I was not good at anything. I remember having my sessions with [therapist name] ... she'd just be like 'what are you good at?' and I'd be like 'nothing'. She's like 'No you're good at stuff.' and I'm like 'No I'm not'. It would just be an argument pretty much about the fact that I am good at things and I am like 'No I'm not.' And the fact was I just wasn't comfortable doing anything I was good at. I didn't want to seek anything out. I didn't want to develop any skills. I believed that I was good for nothing.

Other participants made the connection between their lack of self-esteem and their problematic behaviours, such as substance abuse, as well as to their relationship patterns. When asked how they felt about themselves before the program, one youth replied:

Bad, really bad. I had no self-confidence and I think that's like a huge part to that plays into any kind of addiction is like not believing in yourself you know. I had no self-confidence at all. I think I sought a lot of my confidence from external influences. So like if someone would say “oh you did really good at this”, that would make me feel better but I would never believe I did good on my own. So it was just, really like, definitely didn't feel good about myself.

Trouble regulating emotion. The third most prevalent mental health concern, mentioned by six youths was trouble regulating their emotions, which participants often described as feeling emotional or ungrounded. For many youths, this meant experiencing strong emotions that they were unable to cope with, then either suppressing these emotions or using drugs to cope. When asked to describe themselves before they entered the program, one youth responded, “emotional for sure, yeah, I know this probably sounds weird because I said I would suppress a lot of emotions ... I was so ungrounded that the littlest things would set me off”.

Self-harm. Half of participants discussed engaging in self-harming behaviours or attempting suicide before entering the program. Some youths describe their self-harming behaviour as a coping mechanism, and others discussed the circumstances in their lives that were connected to their self-harming behaviour. One youth explained their life before coming to Pine River by saying “I’d just stay in my room and listen to music, and eventually just led to self-harming and dissociating and I was just really unhappy with my life ...everything about myself and my life I hated”. One youth described being rejected by peers and experiencing shame and guilt as being related to their self-harming behaviour. This youth expressed, “stuff they were saying really affected me ...you know it got so bad ... I would usually punch myself in the face”.

Anxiety. Another prominent mental health concern was anxiety, with four youths mentioning that they struggled with anxiety before entering the program. For example, when asked to describe themselves before they came to Pine River, one youth responded, “Umm. Confused. And like afraid. Afraid of a lot. Just like, yeah. Very anxious”.

Carrying shame and guilt. Three participants mentioned that carrying shame and guilt from past mistakes they had made was a major challenge for them. One youth discussed feeling misunderstood by their family and said, “I would cry every single day because I felt so, you

know, guilty and shameful”. Another youth mentioned, “the problem with me is I carry a lot of shame...I carry my shame with me everywhere. With the way I've treated kids at school with the way I've been with my family, all sorts of things”.

Suppressed emotions. Three youths discussed suppressing their emotions, often due to being overwhelmed and not knowing how to cope with their feelings. This can be seen in the following conversation:

P: How did I feel most of the time...mostly happy or angry.

R: Not sad ever?

P: I pushed that away.

Connection to physical health. The final category in the mental health section related to how aspects of youths’ physical health were connected with their mental health problems. This category was mentioned by four youths. . For example, one youth said, “my whole time center was off, I woke up at 5 at night, woke up at 7 in the morning, I don’t even know. I wasn't eating barely, really depressed...I wasn't weighing a lot.”

Substance abuse. Given that Pine River is designed for youth who struggle with addictive behaviours, it is not surprising that many youths discussed their substance abuse in detail. This included discussing the impact using substances had on their lives, the reasons why they used substances, using to suppress their emotions, and others not understanding the reasons behind their use.

Consequences. The consequences of their substance abuse were discussed by five youths. One youth reflected on the consequences of their substance abuse by saying, “started smoking marijuana, and then I don’t know. Just spiraled out of control from there, which caused a lot of different things. Caused problems with my family and relationships and school”. Another youth offered a similar recollection of their substance abuse, “I just like used a lot

during that time and really like lost who I was and yeah, it kind of took over my life. I couldn't really function in school and didn't really care much about friends or family". From the stories of these youths, it appears that extensive substance use interfered with important developmental processes, such as the development of identity and healthy relationships.

Why I used. Four youths also offered insight into the reasons why they used substances as often as they did before coming to Pine River. One youth talked about using substances to cope with the death of a family member. Another youth explained that they used substances everyday because, "I hated my reality". Lastly, one participant saw drugs as a tool for healing and articulated this by saying "my dad would get very angry about the fact that I was using and to me... using was a healing tool but it did a lot more damage than healing, but that's how I thought of it at the time".

Used substances to suppress emotions. Three youths indicated that they chose to use substances as a way to suppress emotions that they did not have the tools to deal with. One youth explained:

I would kind of suppress my emotion and use to forget like of the stress of suppressing them... and I felt pretty empty because like those are all a part of me... I started using that as a habit and did that with a lot of my emotions.

Others not aware of reasons. Two participants also believed that other people in their lives were not aware of the reasons they used substances. For example, when asked how their friends would have described them before coming to Pine River, one person said, "Umm, I don't know, a problem. Someone with issues. I think the drug use stemmed from emotional problems, and they didn't really see the emotional problems, they just saw the drug use".

Indifferent thinking. Eight youth discussed the types of thought patterns they had before entering the program, including a lack of motivation, denial of the issues they were experiencing, not seeing a future for themselves and not finding meaning in their lives.

No motivation. The most prevalent type of thought pattern reflected a lack of motivation, and this category comprised quotations from three youths. This theme is captured in the following conversation:

R: How else do you think you'd describe yourself before you came to Pine River?

P: Oh, before... I'd say like unmotivated, emotional for sure, yeah.

R: How do you think your parents would have described you?

P: Maybe like apathy. That probably came off to them. Definitely like unmotivated...

Denial. The second most common thought pattern mentioned by the youths was being in denial of the problems they were experiencing. This concern was mentioned by four youths. One youth explained, "the first day I got into the program was the day I thought, I was finally doing something about myself. That's when I really accepted that I had a lot of problems, and I was denying those issues".

Lack of future. Three participants mentioned that they did not think much about their future or make plans or goals, which many of them referred to as poor future orientation. For example, one participant stated "I never saw a future for myself, and that's pretty scary".

Lack of meaning. Two youths revealed they did not have a lot of meaning in their lives before beginning the program. They explained that they felt unfulfilled and confused about the meaning of life. For example, one participant explained:

Even before I knew I was coming here I was binging on drugs and I wasn't selling drugs and I wasn't going to school and I was like... this is not what I'm meant, I'm a smart person. Why am I doing this to myself? I used to always really be deep into thought about what the meaning of life is, and now here I am and I don't know what the meaning of life is anymore, and that sucks, because I used to care a lot about that stuff.

Self-other destructive behaviours. All ten youths discussed their behavioural issues before beginning the program, which included self-destructive behaviours as well as behaviours that harmed others. For some youth, this included skipping school, dropping out or failing. For others, behaviours such as stealing and playing video games constantly caused problems in their lives.

Skipping school/failing. Before entering the program, six out of ten youths had dropped out of school, were skipping school and/or failing classes; this category was mentioned a total of nine times. When asked about any events that precipitated their coming to Pine River, one youth said, “I guess my main reasons, like the big ones, were me dropping out of school, happened at ummm grade ten, like half way through. I only had two credits, so the main reason for coming here was school”. Another youth mentioned, “I had truancy issues, I got suspended a lot from school. I was failing most of my classes”.

Destructive behaviours. The second most prevalent category included behaviours that participants described as unhealthy or destructive, which were discussed by five out of ten youths. For some youths this destructive behaviour included running away from home, being suspended, being arrested, selling drugs, or engaging in sexual activity that they later regretted. Other youths described destructive behaviours in terms of distancing themselves from old friends to spend time with new friends who used drugs and/or engaged in some of the other destructive behaviours mentioned above. One youth explained this destructive behaviour pattern as:

I felt really trapped and out of control. And usually when I'm feeling out of control, I purge or I restrict my eating or do things? that aren't good for me or like I go and have sex with people or something like that. I don't know. Something that makes me feel better at the time, but then I end up feeling really shitty about it after.

Stealing. A specific unhealthy behaviour youths discussed was stealing from friends, family, or strangers. This behaviour was mentioned by four youths a total of five times. For

example, one youth discussed stealing things like money or cell phones from peers at parties. Another youth mentioned stealing their sister's things, and a third said, "you know I would kind of steal money. I started stealing money off my mom's credit card and stuff, even when I knew it was a bad thing. That was the start of a really bad time".

Played video games all the time. Two youths identified their video game playing as part of their unhealthy lifestyle before coming to Pine River. One youth said, "I was really sad, playing video games all the time, not talking to anyone, not caring about anything".

Developmental Challenges. The final category in the *Before* domain was the developmental challenges youth were facing, which included struggling with autonomy and being narcissistic.

Autonomy struggle. Five participants described themselves as being engaged in a struggle for autonomy before entering the program. Establishing autonomy is a central task in adolescence, with a move to more independence from parents and other adults. In the words of one participant, "once I started smoking every day I didn't really care what my parents thought. That's when I really started to push away from my parents...and start having autonomy issues with my family and teachers".

Narcissism. Another challenge in the development of many youths was being overly focused on the self, which they often described as being narcissistic. This category comprised comments from two youths. For example, when asked to describe themselves before entering the program, one youth said "honestly, probably a narcissistic little shit. Like, honestly umm. Because, I didn't care, you know".

These developmental delays are some of the main things Pine River aims to address

through their program, and as evidenced by the responses below, it is clear that the youths interviewed have made huge developmental gains in these areas and many others.

Changes Made in the Program

During the interviews, all ten participants spoke excitedly about the changes they had made in the program, resulting in the emergence of six main categories in the *Changes* domain (see Figure 3). After beginning the program, youths reported: a greater ability to cultivate healthy relationships, better family relationships, and profound changes in how they felt about and defined themselves. These youths also discussed major changes in their thinking, emotions, and behaviours as a result of their experiences in the program.

Healthier relationships. The most prevalent change participants discussed was a shift in their understanding of and experiences in relationships. This main category was mentioned by all ten youth and comprised eight categories.

Learned how to have healthy relationships. Seven out of ten youths mentioned changes in their abilities to have positive relationships with the people around them. One youth, who used to struggle in navigating friendships and romantic relationships, mentioned that they have learned “how to create warm emotional relationships without having the physical aspect”. Another youth who discussed experiencing a lot of distance in their previous relationships mentioned that through the program they “learned how to deal with interpersonal situations”. A third participant shared some of the things they learned about having a healthy relationship:

Just, for me, I've been more authentic and assertive of how I'm feeling, and also not dwelling on things that bug me. And showing someone that you're strong and just owning up to things and having acceptance for other people, I think that's also good and especially when you're in relationships. And most importantly, it's trust, honesty and just loyalty, you know? And that's what is good in a relationship, and having that comfortability with people and even having good boundaries. Knowing that my boundaries are good, and sticking to my values and my morals, you know? Because then

you get the respect. And that's what I think is good in relationships. That's what relationships need, you know?

These experiences stand in stark contrast to the way youths described their relationships before the program (e.g., unhealthy, distant, lacking trust, etc.).

Expectations for future relationships. The second most prevalent category involved youths having new expectations for future relationships. This change in expectations was mentioned by four youths. One participant shared their intention to seek out “friends that are supportive and mature”, whereas a different participant explained that they planned to seek out new relationships based on shared values. A third participant talked about having mostly negative relationships before the program and setting a new standard for future relationships.

They indicated:

You know, it sets a new example, and you set a new standard for yourself. You're like, 'well if this is real life, and I deserve this right now. So, what's different? You know? When I go back out into the world, this is what I deserve. I deserve for someone to be there for me. I deserve someone who's going to care about me...I care about myself more, and I want more for myself and so like I won't let myself fall back into that.

Redefining relationships with old friends. In addition to having new expectations for future relationships with peers, four youths also considered having to re-define relationships with old friends after the program. One youth explained this by saying:

And so, not using in my future, I don't know where they come in. If they do want to come in my life as someone who I'm not using with, then like that's perfect. That's great, and then I'll be able to support them, and but it would be rebuilding the friendship from start, and if they don't accept me for the person I am now, then whatever. Like, they can just live their life and I'll live mine...

Other youths discussed having to carefully consider which friends to reconnect with when returning home after the program. For example, one person said “even though I miss them at times, I say, well even if I do want to talk to them I know it's probably not going to be good for me”.

Built relationships with different types of people. Four youths discussed that during their time at Pine River, they developed relationships with people they would not have necessarily connected with back home, including both peers and staff. One person described building relationships with people on their team that they would not normally have been friends with:

I have built friendships with people that I never thought I would ... I am friends with people on my team right now ... when I first met them I thought these people were like really weird ... a few of them have very bad social awareness. So if you don't have patience or a good relationship with them ... they would drive you insane and you'd feel really disrespected and annoyed, but after understanding them, having patience and having a close relationship, I understand their intentions and understand what they're trying to do. So, just people I never thought I'd be close with, yeah.

As well, two youths specifically mentioned that they did not trust adults and felt that they could not have a close relationship with an adult before coming to Pine River. One participant admitted, "I didn't really like adults back home, and I didn't talk to them that much, and I thought they all judged teenagers and they all didn't like us. But I realized that I can have a friendship with an adult". These youths discussed how much they had learned from these relationships with people whom they might not have been open to developing a relationship with before coming to Pine River.

Setting and respecting boundaries. Half of the youths interviewed considered setting boundaries and respecting the boundaries of others to be essential interpersonal skills they gained from the program. One youth shared their process of developing this skill:

I've gotten a lot better at setting boundaries with people. Umm, I still do, but a big problem I've had is caretaking. So I continue relationships even if it is really negatively affecting me. And I've found that setting those boundaries has made it a lot easier, and feels really good, because I don't have to feel guilty about it. I still do, but I can manage, you know?

Learned how to develop trust. Another important change, discussed by three youths, involved learning how to develop trust in relationships. One youth stated, "you know I've

learned to trust people...it takes work, when to trust someone”. Another youth reflected on how before entering the program they trusted peers right away by saying, “I kind of trust too early. So, as soon as I thought, ‘yeah, we’re going to have a relationship’, I immediately put all my trust in [them], which was wrong because I should have developed it later”.

Feeling more connected/less alone. Four youths explained that through their participation in the program, they felt closer to people in their lives and less alone. For example, at the beginning of the program students map out a circle of trust where those close to the inside of the circle are people they trust the most. Comparing their circle of trust before and after the program, one youth said:

Yeah it's pretty different ... I probably would have only had two or three people on there before and now I would probably say I have at least, you know like 6 or 7 people on there, and they would be closer than anyone, all those people would be closer than anyone that would be on there before, so yeah it's definitely changed a lot.

Another youth stated, “I'm not alone anymore and that's an awesome feeling”. In this way, this category represents a major departure from the loneliness category in the *Before* domain.

Better family functioning. The second most prevalent type of change youth discussed was changes in their families. This included closer relationships, more trust, better communication, greater understanding, more respect, more support and more structure.

Closer relationships. The second major category of changes youths discussed was experiencing powerful shifts in family relationships. Specifically, seven youths described their family relationships as much closer due to their experiences at Pine River. One youth articulated this by saying, “I'm very close with my mom now. She's been through a lot with herself, as well as my dad. So I'm very close with both of them now, I'm pretty happy about that”. Other comments in this category included sharing more personal things with their family, asking them for support or advice and wanting to spend time with their family.

More trust. Another important change was building more mutual trust in their family relationships. Four youths talked about all they have gone through with their family in their journey to seek treatment, and how they now trust their parents more. Many youths also commented that their parents trust them more because of all the work they have done at Pine River. One youth explained that in their current relationship with their mother, “she takes my word on things. Which is really important. Whenever I said anything to her before, she had zero faith in me”.

Better communication. Two youths mentioned that their communication with their parents has greatly improved over the time at Pine River. One youth talked about how profound these changes have been:

I think they've learned how to communicate.. so like, now [my dad]'s able to tell me why he makes certain decisions instead of just being 'this is how its going to be.' He's able to say 'I want it to be like that because of this.' And I can completely empathize with that ... even if I don't agree with it ...that's fine and I understand that and I think that's helped our relationship a lot.

Greater understanding. Three youths spoke about their families having a greater understanding of them as a person. For example, one youth believed their parents had “developed more understanding for my issues and where I'm coming from. They understand a lot more about me and my past”.

Respect. Two youths felt that their relationship with their families was characterized by having more mutual respect. One youth described their relationship with a family member as “very respectful”, whereas previously it had been characterized by conflict and physical abuse. Another youth mentioned that their parents “respect me a lot for coming to Pine River, think that was the first measure point, after that it's been steady since”.

More supportive. Two youths described their families as more supportive after beginning

the program. For example, one participant said that their parents “know how to be more supportive of me”.

More structure. The final change in family dynamics, mentioned by two participants, was that their parents were setting clear expectations in the home. As one youth stated, “we're slowly building a new dynamic that has a bit more structure in it”.

All of these individual changes have contributed greatly to youths and parents having a deeper connection, as well as more stable and mutually satisfying interactions. These new experiences stand in contrast to the overwhelmingly negative experiences youths were having in their family and peer relationships before entering the program.

Stronger sense of self. This main category *Stronger sense of self* captures how youths define, describe and feel about themselves. This main category was mentioned by nine youth, and included greater self-confidence, self-identified maturity and pride. Youths also mentioned valuing themselves more and finding themselves (developing a sense of self through exploration).

Self-confidence. The single greatest change in this regard is the transformation from having low self-esteem and low self-confidence before coming to Pine River, to having higher self-confidence. In fact, eight out of the ten youths indicated that having more confidence in who they are was one of the greatest changes they had made in the program. One youth commented, “I was very self-conscious and very uncomfortable with myself and here I've developed the ability to have a whole lot of confidence”. When asked what the top three changes they had made in the program, one youth said “My top three? Umm. Probably my confidence. That would be number one”.

Maturity. Another significant change was that youths felt they had matured over their time at Pine River, and many described themselves as a mature person. For example, one youth

was asked how they would describe themselves at this moment in time. They replied, “Smart. Future oriented. Hopeful. Happy. Umm. Mature and grounded”. It also appears as though this new sense of maturity is a source of self-esteem and self-confidence for many youths. For instance, one participant explained:

It is really is a turning point for a lot of people, because just having graduated from this place, under your belt, you're going to go back at like a maturity level where no one else around you is going to know. You learned like half the stuff you should know by the time you're forty here. Like you know the skills, all the tips and tricks. You know what's going on, you know how to be comfortable in yourself... you stand taller.

This maturity category can be compared with the developmental challenges category in the *Before* domain, in that before PRI, youth felt they were showing signs of developmental lag in their struggle for autonomy and narcissism, whereas they now see themselves as mature.

Valuing self. Another important change involved youths valuing themselves after participating in the program, which is in contrast with their low-self esteem prior to entering the program. This category was mentioned by five youths. One youth explained this change as “knowing how I feel and trusting in that. It’s such a good feeling! It makes me so happy, because its like 'okay I'm valuable.' You know? And that’s a really different feeling from how I felt before”.

Finding myself. Four youths discussed that they were engaged in the process of “finding themselves”, or building a sense of identity through their interactions with the world. For example, when asked about the most significant changes they had made, one youth replied: “the one that really stands out for me, and I think is giving me the biggest difference in my life, is finding myself. Or like, recognizing my feelings and validating them myself, without needing other people to do that for me”. Another youth described their journey as:

I’ve worked a bit on identifying who I am, I guess when I came I didn’t really know who I was, because I’d been like browsing around, looking for someone’s personality to try

on. Like a new pair of pants, or something. Now I guess I'm a bit more comfortable in where I stand...

Pride. Three youths mentioned feeling proud of themselves and their accomplishments in the program, which is a major change from the low-self confidence most youths reported experiencing before the program. For example, one youth discussed feeling a lack of self-confidence until a staff mentored this youth during the wilderness component and taught them about positive affirmations. This youth shared some of these affirmations such as, "I'm proud that I was helping today... I'm proud that I cooked for people. And all those little things add up, and you can really look and be like 'wow, there's a lot of things I should be proud of'". The combination of more self-confidence, maturity, pride, and valuing themselves indicate that youths have a very different way of seeing themselves, and partly because of this, a different way of interacting with others.

Emotional balance (enjoying positive emotions, coping with negative emotions). The emotional experiences that youths described before and after beginning the program were noticeably different. In the *Before* domain, the single most prevalent emotional experience was feeling sad and depressed. In contrast, the four categories that together captured youths' emotional experiences through the Pine River program included being excited for the future, aware of their emotional triggers, learning to cope with their emotions and feeling happy.

Excited for future. The most commonly discussed emotional experience was feeling hopeful and excited for the future, which was discussed by six youths. Before the program, youths talked about having no motivation, a lack of meaning in their lives, and not seeing a future for themselves. This lack of motivation before the program is markedly different from the feeling of excitement for the future captured in this participant's words:

P: I actually can now look forward to life. I never saw a future for myself, and that's pretty scary, and now I am actually, I'm really excited for tomorrow and for whatever is to come, which is ridiculously unbelievable.

R: Yeah, it's crazy.

P: Yeah, it really is. That's a crazy change and the majority of that does have to do with Pine River.

Awareness of triggers. Half of participants cited a growing awareness of how external events made them feel. They use the term 'trigger' to refer to an experience that causes them to have an intense, often negative, emotional experience. For example, one person reflected, "I was thinking about living on residence for university and then I thought about it, and I think that would be pretty triggering. I think it would be hard to be around a bunch of people who were constantly partying".

Learned how to cope with emotions. In addition to a greater awareness of how external events made them feel, many youths also discussed being able to cope with strong emotions more effectively. This change was mentioned by five youths. As one participant commented, "I think that's what's really good about here, too, is that you learn how to work through those feelings".

Happy and enjoying life. Finally, three youths explained that they experienced more joy and were able to enjoy life after beginning the program. For example:

I was on anti depressants for umm. Really close to three years, the highest dose. I thought I was going to be severely depressed my whole life... I just had all these medications and now I'm not on any medication. I'm actually genuinely happy. I enjoy living, I enjoy my life, I enjoy my relationships with my friends and my family. I have goals set for the future. And I'm usually in a calm, good mood. I enjoy life.

These kinds of emotional experiences are quite different from the types of emotions youths reported having before the program, including depression, anxiety, and loneliness.

Insightful, future-oriented thinking. After beginning the program, youths noted changes in their thought patterns, including planning for the future more, having greater insight,

engaging in better decision-making and being more motivated. This main category was mentioned by seven youth.

Planning for future. Before the program, many youths described themselves as being unmotivated and not seeing a future for themselves. This way of thinking had changed for many of them. In fact, half of participants mentioned that they were thinking about and planning for the future much more after being at Pine River. When asked how they would describe themselves at this point in time, one youth answered, “more future oriented, more aware of what I need to get done, more of a better sense of what I want to do after I'm done high school”. Another youth discussed the types of future plans they were making for their lives once they returned home: “I didn't even know this about myself, but I'm really good at planning things for the future and just planning. Yeah, I don't know. I've planned a lot for how things are going to be back home”.

Insight. After beginning the program, participants had much greater insight into their past behaviour and articulated their place in relationships with great clarity. This category comprised comments from three youths. For example, when asked to summarize their experiences in the program overall, one youth said:

Overall, I would say that it is eye-opening. Umm, reasons for that would be. Because you can clearly see that there were things wrong with the way you were living before. You treat your family wrong, I was treating my family wrong, I was never taking accountability for what I did. I thought that everything I did was my right, and that like things weren't a privilege. Now I see that it's not at all, like I don't deserve to do everything, I need to have rules in place that I don't get to call the shots, that I need to respect my mom and not see her as an equal all the time, because you know what? She's in charge. That's her role.

Better decision-making. Three youths commented on the advances they had made in their decision-making abilities, including their ability to effectively analyze situations and make choices that contribute to their wellbeing. One participant mentioned:

I wasn't always very good at thinking through difficult situations, which made me make stupid decisions, and it caused problems. Now I think I have a better understanding of what will benefit me and what will be destructive. Which I think will help me make better decisions in the future.

Motivation. Lastly, two youths felt that they were more motivated because of their participation in the program. When asked what skills they had learned in the program, one youth replied “empathy, respect for myself and others, honesty, motivation”. This represented a positive change from the lack of motivation youths reported having before the program.

Taking care of myself. The final category of changes after the program involved a youth feeling as though they were making healthier decisions, such as deciding not to use substances. Interestingly, this main category was only mentioned by four youth.

Being sober. Three youths discussed that they were very happy about their decision to be sober now and continue being sober after the program. By sobriety, youth were referring to avoiding both drug and alcohol use. In the words of one participant:

A lot of people they just want to get through the program, but I seriously see that I'm changing my life and I don't want to smoke cigarettes, I don't want to smoke weed, I don't want to use other drugs. I don't want to drink, I want to be sober, I want to be happy. You know?

This desire represents a change from the severity and frequency of substance abuse that many youths struggled with before coming to Pine River.

Healthy behaviours. Two youths discussed making changes in their behaviour that they considered to be positive. For example, when asked about changes they had made, one person said, “probably just being, you know, congruent....deep down I know I'm a really decent person, but my behaviour doesn't always match my thoughts or my emotions, and I think that's a big problem for a lot of people here”.

Development of Self in Relationships

The development of self in relationships involves learning how to relate to other people in ways that feel real and meaningful. The categories in this domain can be seen in Figure 4; however, unlike the other domains, this domain is composed of only main categories with no subcategories.

Being authentic and real. The theme of authenticity came up in multiple contexts across multiple participants during the interview process. It was mentioned by seven youths. For example, when asked what had helped them develop greater trust with their parents, one participant responded, “just like the difference of energy in me, and kind of a realness and maybe an authentic note”. Another youth explained that through their relationships with people at Pine River, they were able to discover their true sense of self:

Especially with like, things like your masks and walls you put up. You don't even realize those are walls until someone calls you on it and they're like 'You're putting up a front right now, like that doesn't feel authentic.' And you have to think about it, you're like. Huh. Is that authentic? And if it doesn't resonate right then you're not... you don't have passion about it, you're not like.. oh I really feel this. That's when you know to think and to like really look into it and be like, okay this doesn't sit with me. Why? This isn't part of me is it? Why would I even put this on, then? Like, what is the purpose of this and then you really think behind that, and realize what your defense mechanisms are...

Development of self – general. The development of self in relationships includes how positive relationships with others become part of the ways in which we self-identify. For example, one youth discussed their experience of offering support to other students during group therapy:

I just feel good about myself if I do it. I would not feel good about today if I didn't offer my support, you know? I went through patches here that I didn't do too well in process groups, you know? Because I was dealing with my own stuff and I just shut down, and that's not a good me. That's not me when I'm at my best. I know when I'm at my best is when I'm offering support to people and I want to just keep doing that as best as I can.

In this way, youth begin to construct their vision of their ‘best selves’ as the selves that are most effective at developing healthy relationships with others. Another aspect of the development of self in relationship involves positive relationships acting as a mirror through which youth can see positive aspects of themselves. For example, I commented on the hope and wisdom a participant was sharing, and this participant replied:

That's how I'd like to be seen. People tell me a lot of the time that I'm a wise person and it makes me feel really good. Because back home, I wasn't seen that way. I was just seen as crazy and angry.

Being vulnerable. A third aspect of the development of self in relationships is the importance of being vulnerable in relationships, which involves showing our true self to others. This category was mentioned by four youths. When asked what they had learned from staff about relationships, one youth responded, “that to be in an empathetic relationship you need to learn how to be vulnerable”. Like other participants, this youth drew a connection between having the courage to be your true self in a relationship (vulnerability) and having a healthy (empathetic) relationship. Other youths developed this concept further by discussing how some of their behaviours before Pine River were the result of being afraid to show their true selves in relationships. For example, one youth said, “yeah, so a lot of it came down to vulnerability. Immaturity saved me from having to be vulnerable”. Interestingly, some youths described the interview process itself as an exercise in vulnerability, and discussed how opening up about their lives was important for their development.

Acceptance of self and others. Four participants mentioned that cultivating acceptance for themselves and other people was important in their development process. One youth explained that a large part of their therapeutic process was “analyzing my behaviour and accepting what I don't really like about myself or my behaviour”. Another participant stated, “and obviously what I've been saying through this whole thing is accepting. Having acceptance

for people goes a long way”. Related to acceptance was the category of developing empathy for others.

Developing empathy. Many youths mentioned that developing empathy was a core skill they had gained in the program, and this in turn became a way that they self-identified (i.e. as an empathetic person), as well as a quality that they would look for in future relationships. This category was mentioned by four youths. One youth said of their peers at Pine River, “We all can relate a lot...we just are sober and we learn how to really feel empathy for people and care about people”.

Honesty. Another prominent change noted by youths, as well as a process that impacted other changes (e.g., changes in family relationships), was their ability to be more honest in relationships. This category was mentioned by five youths. One youth explained:

Umm, I've become more close and more honest with my dad and my family, so like me and my dad have always had a good relationship, but like now it's not the feeling where I just want to make him proud. It's the feeling that I actually feel that good in our relationship, that it feels authentic and honest. And the availability to be like vulnerable with him, and listen to what he has to say.

Another youth explained how being honest was connected with their sense of self-confidence.

This youth depicted this connection as follows:

I have a lot more strength in myself because I can talk to people and kind of like, with everything I've learned I'm not... I'm thinking pretty rationally and they can reinforce that and be like 'Yeah, stand up for what you believe in, be respectful, be honest and direct, but stand up for what you believe in.'

“Taking accountability”. Three youths mentioned the importance of taking responsibility for their behaviour, as this is essential to developing trust in relationships and also involves being a trustworthy person. The youths discussed this way of relating to people as helping them have mutually satisfying relationships, as well as being a person they approve of in the context of a relationship. One youth described this as “admitting things you've done, coming

to terms with things you did, understanding why you did the things you did, and most importantly wanting to change”.

Gratitude. Three participants commented on the importance of being grateful for things in their lives, as well as expressing gratitude towards others. For example, one youth said “you just gotta appreciate where you're at and what you get here. You're not going to get relationships at home like you get here. So you just got to appreciate things”

Humour. Three youths described using humour as a way to be gentle with themselves and others, connect with others and be authentic in relationships. One youth explained, “you gotta laugh, you have to...sometimes you even have to laugh at yourself. Saying that was stupid, what I did, but whatever”. In this way, participants have identified humour as a way to learn, grow and make mistakes without harming their self-concept.

The categories in this domain suggest much of the development of identity occurs in the context of relationships. The final section will explore the aspects of Pine River’s program in the words of the youth, and how different elements of the program relate to their journey of change.

Mechanisms of Change

Most youths found it challenging to identify exactly which elements of the program were linked to specific changes they had made. When asked what aspects of the program were most helpful, one youth explained:

Hmm. That's super hard. Umm. [R: Or is it the whole thing?] Yeah. It really is just the whole thing you know? I can't put a single, I can't just take one thing out of the equation. It all comes together. Like it's kind of like a yoga class. Have you done yoga? [R: Yeah] Well, you've got one sequence of stretches, and the next sequence you do is supposed to counter act the first one. It's always supposed to be in a certain order. How you do it. And it all comes together, and you feel really good at the end. But if you left in the middle of it, you're going to have back pains and all sorts of pains and whatnot. It'll work out, but it's kind of like this whole place is a bunch of sequences put together and it works out well, but I can't take one thing from it. You know?

Many youths did, however, discuss key aspects of the program that they considered highly influential, resulting in the emergence of six main mechanisms of change. These are displayed in Figure 5.

Development through critical relationships. The single most important mechanism of change, according to the youths, was the relationships they formed with individuals in the program, including the staff, therapists and fellow students.

Relationships with staff. All ten participants talked extensively about how important their relationships with staff were essential in their development as a person, making this the single most influential element in youths' journey of change. One youth reflected, "I developed a close relationship with the staff before I did with the students and...they just helped me so much with my life, and [staff name]. He was the main role model for me to be a man and an adult". The youths articulated how staff modeled what a healthy relationship looked like, and through these relationships they learned how to have healthy relationships with others in their lives. For example, one youth said, "I don't know if you remember [staff name]...I'm like super close to her so yeah that helped me understand how to build those relationships and then I can do that for the rest of my life with other people". Another youth explained that staff members had, "each given me so much helpful advice and insight about how to deal with things and how to change things and how to move forward".

Other youths talked about what it felt like to be cared for unconditionally by an adult. This was significant for many of these youths, as some of them had experienced abuse, trauma and conflict in their family and peer relationships at home. When asked what the most helpful thing about the program was, one youth answered, "the program, they just care. They care about you. They give you everything you need".

Relationships with students. The second most significant part of the therapeutic process was youths' relationships with other students in the program. All ten youths mentioned their relationships with other students as important to the progress they made in the program. When asked what the most helpful parts of the program were, one student responded "probably the students. The students that you're living with. They're the ones you do most of your work with. Umm, whether you like them or not, they teach you so much". Another student described their relationships with other students as "really deep. Like you won't ever experience the relationship in your life like one that you have here. Because you open up about everything that you never plan on opening up about, in your life, with these people". It was also common for participants to discuss how their work with other students at the school transferred to their relationships with friends and family, for example:

P: Your team, I feel like they have the team dynamic as a mimic of your family. That is what it's really practice for...it will mimic the family you will make for yourself when you get married and have kids. It will mimic all sorts of different family relationships ... because you're with them for everything. And it's like, it teaches you that you can't escape it. You gotta deal with it. You can't just bury it down. ...Yeah your team really mimics family.

Relationships with therapists. Eight of the ten participants discussed how much they learned through their relationships with their therapist. Youths mentioned that their relationship with their therapist helped them develop a deeper sense of their identity, as well as work through the problematic aspects of their relationships with people at home and at Pine River. One youth stated how their therapist was important in the development of their sense of self:

R: It sounds like you've made some really neat progress trying to figure out who you are. Do you think being here at Pine River has helped in that process at all?

P: I would never have found out who I was if I hadn't have come here.

R: What was it about the program that helped you figure that out?

P: My therapist.

Other students talked about their therapist encouraging them to be more open and push their comfort zone, connect with other students on a deeper level, and be more aware of how certain behaviours impacted those around them. Similar to relationships with other staff, the experience of being cared about unconditionally was mentioned as a defining feature of the relationship with their therapist. For example, one participant explained:

P: She'll constantly tell me like, she's like 'I still care about you, just as much as I did before. Just because I called you out on something'... or even if I mess up or like you know? She's like 'I don't stop caring about you because of that, because I still like you', and I'm like 'I know'. Feels weird. It doesn't feel like a conditional type of care, its like unconditional. And its part of her job, its not like she's going to stop caring about someone, but its nice to feel that connection, yeah. It's really nice.

Another participant explained the difference between the therapists at Pine River and other types of out patient programs they had participated in:

But the thing is, I vented and then I would go back into the outside world, and things would still be shit. Even if I did, and I was honest in therapy, I did really well in therapy. I felt really good in therapy, I left therapy and I was in a shithole again. So, I just kept using. Where here, I'm doing therapy. I've developed a really close relationship, because I've been with her for a year and a half now. Umm, never had a therapist that long. And I don't know, we've just been through a lot of stuff together. I trust her more than pretty much anyone.

Across all participants, relationships with staff, therapists and students emerged as the single most important factor influencing their journey of change through the program.

Elements that facilitate the development of self in relationships. The second most prevalent main category in the How domain involved elements of the program that helped youth develop their sense of self and relationship skills. These elements included process group, the opportunity to practise skills, the process of giving and accepting feedback, check-ins and Dialectical Behaviour Therapy (DBT).

Process group. All ten youths mentioned *Process Group* as being a main space in which they work on their relationships with other students in the program. The process groups involve

the whole team of students and one staff or therapist meeting three times per week to discuss how things are within the team. This includes: discussing problems, sharing how each member is doing, giving feedback to others about their behaviour, asking for support and offering appreciation to fellow team members. One youth shared their experience in process groups by saying, “I enjoyed process group because people are honest and it’s a safe place...they can trust you and you can trust them. It feels good to be in a relationship with that many people ...makes everybody feel really open and honest”. Another youth described process group as “a really good place to grow. And to hear support from everyone”.

Practising skills. A second part of the program that facilitates the development of self in relationships involves learning relationship skills in therapy, then applying these skills in relationships with staff and student. This category was mentioned by eight youths. One youth explains, “I also learned how to deal with interpersonal situations, relationships I developed with team members and staff have been a practice. A good practice for situations that I may come across later on”. Other youths discussed learning interpersonal skills at Pine River that they can then apply with family and friends back home; for example:

You know, that all the frustrations that you've had with your family, the things that you've done, the guilt and shame you thought you could never repair, because you were dealing with it in a way that wasn't right, you know? And that's what you're taught here. You're taught a lot of new skills that you can deal with it.

Giving and accepting feedback. Half of the youths interviewed discussed the importance of giving and accepting feedback about one’s behaviour as a mechanism of personal growth. Often, this process of giving and accepting feedback occurs during Process Group; it may also occur during therapy sessions, or informal conversations with staff or other students. One student explained the process of giving and receiving feedback in process group by saying, “everyone has taken at least one or two pieces of feedback and probably given some to other people... and

it has been given in such a way so it's productive and it helps people deal with their issues”.

Another student describes how the process of giving and receiving feedback helps people grow and be their authentic selves in relationships. This student says:

I think the team aspect is important because we learn to support each other and to use each other in a very helpful way, and we can call each other out because we get to know each other really well. If someone's off or talking shit, we can just be like 'what are you doing? I know you better than that'. I think that's a very important thing.

Check-ins. At Pine River, a “check-in” refers to a conversation between a student and a staff or two students in which the student opens up about how they are doing. Half of the participants talked about how important check-ins are in their process of change in the program. One youth stressed the importance of check-ins:

Check-ins are also really important to me, because they. It's like a close relationship that you can make, like through a check-in just like one on one, you're just talking. That's it. You don't have to talk about what drugs you did, you don't have to connect in any way besides the way that you're doing. Just talking about how your day is, or what you're feeling or what you've been doing in therapy, or anything.

In this way, check-ins function to both help the individual youth in their therapeutic process and facilitate a deeper relationship between the individuals who are checking-in.

Dialectical Behaviour Therapy. Three youths discussed Dialectical Behaviour Therapy (DBT) as a way to gain skills that helped them be authentic in relationships. One youth stated that DBT “teaches you a lot. It teaches you how to be mindful, and how to be aware of certain issues you have”. After learning these skills in DBT, youths were able to practise skills like mindfulness and interpersonal effectiveness in their relationships with the staff and students at Pine River, as well as with their families who were also learning new skills in therapy.

Elements that facilitate changes in the family. During the interview, youths were also asked what parts of the program helped them to shift their family dynamic and improve their relationships with family members. They responded that the family groups and structured family

time, letter of accountability, fresh start with their parents and time away from home were all important in facilitating changes in their family relationships.

Family groups/ structured family time. Seven out of ten youths mentioned that the family therapy and structured family time were core components of the program that helped repair their family relationships. This can be seen from the following conversation:

R: And what has it been like to do the family therapy?

P: Incredible. I never thought I'd talk to them again, or, I'd talk to them, but like have a meaningful, respectful relationship. I never thought that would ever happen. And it's happened.

R: That's amazing. What is it about the program that's helped you get to that point with your parents?

P: Umm, I guess the controlled environment where you start seeing them at the school, then eventually you get to go away with them for a bit, then eventually home. It's the gradual re-integration of them into your life, as well as therapy with a person to listen to what's going on and step-in when necessary.

Other participants discussed the changes their parents had made due to their participation in the family therapy. For example, one participant's stepfather said "I love you" for the first time during a parent retreat therapy session. Some youths mentioned the value of the parent support groups for their parents' development, explaining that through these groups parents get "support from other people". Through the parent support groups and family therapy, parents gain skills such as setting boundaries with their teenagers, communication, and coping with their emotions. The parents' growth and development is essential in improving the quality of family relationships, which in turn impacts youths' wellbeing.

Letter of accountability. One of the first tasks that the youths must complete at the beginning of the program is completing the Letter of Accountability. Parents initiate the process by writing a letter to their child naming their child's problematic behaviours and explaining how these behaviours impacted the family. Youths are then expected to write a letter in response, taking responsibility for their behaviour before Pine River. Six youths cite this letter as an

important part of their therapeutic process. One youth described the importance of writing this letter by saying:

And I think it's really important to hear all the things I did, and really get it in my head, because I didn't think I was that bad before I got the letter. But it was really important to get it in my head that I had done this. I had done that. I was acting like this. I was treating my family like that. I wasn't doing this. I wasn't doing that. Just really realize like, how much I need help. How much I need to change things. Like that was a huge wake up call.

Fresh start/blank slate. This letter of accountability is often described as providing youths and parents with a “fresh start” or “blank slate” on which they can build a healthier relationship. Some youths describe the program as a whole as giving them a fresh start with their parents. When asked about the most helpful components of the program, one youth replied, “Um, really just being away from all the influences at home, a fresh start I guess, especially with my parents”. In this way, the program acts to interrupt the negative patterns of interactions and helps parents and youths repair their relationships. This category contained statements from four youths.

Being away from home. Four youths discussed being away from all of the influences of home as central to the improvements they made in the program. One youth elucidated this process as follows:

P: I think probably one of the most helpful things was the way like, it takes you out of your life completely. Um, like I haven't, before I went home...like a month ago or so, I hadn't seen any of my old, people I used to hang out with, or had any form of communication with them for like over, or just under a year. So like, and then it sort of helped me not worry about those relationships and just deal with that I need to work on here, and not having to worry about anything that's going on at home with like little drama's and stuff like that, if my mum was mad at my dad I wouldn't have to be involved with that at all cuz I'm here and they don't involve me with that kind of stuff. So just being like, sorta disconnected from those kinds of things and being able to work on myself is helpful.

Program structure. Youths mentioned two aspects of the program structure as helpful in their journey of change: the stage model and the amount of time spent in the program.

Stage model. The Pine River program is set up so students must pass through five stages. This process is valuable because students in higher stages offer mentorship and support to newer students. One student explained, “you have that example, which is the way the program is set up, you usually have someone in each stage and its just like, 'okay, you see where certain people are.' And like, that sets a huge example”. To pass through each stage, the student must meet a specific set of maturity measures and relationship skills (e.g., honesty, accountability, etc.). If a student has regressed into old patterns, it is possible for them to be demoted to the previous stage. One student explained how getting “stage dropped” was a valuable learning experience for them, “I took an honest look and asked 'what's not going right?' and then I looked at kind of the relationships I had...if I didn't get stage dropped ...I think I would have stayed in a very rough spot”. Another aspect of the stage model is slowly transitioning back into the home environment and participating in the after-care stage of the program. One youth explained this process, “you slowly see your parents first every other weekend, then every weekend, then you start going out with them every other weekend and ... you visit home once a week and its a slow transition”. This category was mentioned by six youths.

Amount of time. Half of the youths interviewed mentioned the importance of being at Pine River for a long period of time in order to make profound and lasting changes. This can be seen in this student's passionate monologue:

R: What was it about Pine River that helped you open up to your mum?

P: Such a long process, you know? It needs to be long. People are like 'Ahh fuck this. I don't want to do this program. I'd do this program if it was like six months'. Six months!? What are you going to learn in six months? Most of these characteristics I learned it over what? God damn 16/15 years or something? You think you're going to

break that in six months? Gimme a break. You gotta like be here for a long time. That's how it goes. It's a long process, you gotta learn how to be vulnerable, you gotta learn how being vulnerable sucks sometimes.

Many youths felt that the program's principle to only release students when they are ready, as opposed to having a set length of time that each student is in the program, was one of the program's greatest strengths. For example:

R: In general, what would you say is the most helpful thing about Pine River? Is there one particular thing?

P: It's that, it's not like 'okay, after five months, we're sending you home. You come in, this is the day you're leaving.' They say 'we're going to send you home when we feel confident that you're ready. And if you go home, and you really start hitting problems, you can come back to the school for a few nights. You can come session with us, you can go get a re-grounding in the woods.' They stay very connected with you. As long as you're willing to change something.

Wilderness therapy. Youths identified aspects wilderness therapy as important in their journey of change. This included the Outdoor Leadership Experience (OLE) component of the program, time spent in nature both in the OLE and at the campus, as well as being able to develop healthier eating and sleeping schedules.

OLE component. The Outdoor Leadership Experience (OLE) takes place in a northern wilderness setting and is the first component of the program that the youth experience. Youth typically spend about two months in this first stage of the program, although the length of time depends on how long it takes each youth to meet the goals of this stage. Four youths mentioned their time in the OLE as being a major contributor to their overall growth in the program. For some, the experience was quite physically and emotionally demanding, and their self-confidence increased after having completed this part of the program. One youth mentioned, "it was really hard, but I look back and feel really proud of myself for doing that. So that's one very helpful aspect that. I feel accomplished because I went through it". The same youth continued to explain how the wilderness component helped in their development:

I loved being smelly and greasy and getting to know these people. And they're not judging you because they're gross too you know? And that was probably one of my favourite parts was not feeling self-conscious. That was a really important thing for me was to feel okay being myself, just physically, and then it kind of transferred to emotionally. I could be more real, I guess, and I liked the OLE staff.

A number of participants also reflected on the role of the OLE as helping them develop gratitude for the things in their life; for example:

And then I think another part of the woods that's really important is that it takes you away from everything and makes you really more appreciative and grateful for the things like school. If you come right from home to here, umm. People would come on their first day, like stoned or drunk and they'd be really messed up. They'd come here going from like everything to nothing. And they'd come here and be like 'These showers suck this bed, this room sucks, there are so many people. This bed isn't as big as my bed at home. This food's too healthy.' They'd pick at all these things at Pine River, but if you go to the woods for two months and come here... 'Wow this bed is amazing, it's comfy. This food so great.'

Nature. An important part of the OLE for many youths was the experience of spending time in nature. Four youths identified the experience of being connected with the natural world as a contributing factor to changes in their mood and overall wellbeing. One youth said, “I mean you can't not be happy, you know? There's like animals all around you. The snow is so pretty”. The main Pine River campus is also in a rural setting, surrounded by hiking trails, trees and animals. A number of youths also identified spending time in nature at the campus as part of their therapeutic process. One youth suggested:

I mean it's beautiful up here, it's quiet and I think coming in here you need to be taken away, you need that quiet thing... when you're early in the program and dealing with a lot of issues, you need that. You need the quietness, because it allows you to not have a million things going through your head or, kind of have that over stimulation, which is bad for some more than for others. But, you have that time to sit down and actually, um. Reflect.

Eating and sleeping schedules. Two youths described how the natural setting both in the OLE and at the main campus helped them develop a more natural circadian rhythm. One participant described this as “resetting, like everything in your body feels really good, like, you

eat at a regular time every day, you go to bed when it's dark and wake up when it's light and you just feel natural".

Positive experiences in relationships. The final main category involves youths' positive experiences in relationships being therapeutic and related to their progress. These positive experiences included being part of a community, opening up to others, connecting with others and feeling accepted. This main category was mentioned by eight youths.

Community. Four out of the ten youths mentioned that being part of a whole community of staff and students working to be their true selves in relationships was the reason that Pine River was so effective at facilitating their development. When asked what it is about Pine River's program that is different than other therapies, one youth explained:

P: I think the biggest thing here is because it's a community. It's not just one therapist teaching us DBT skills or CBT skills it's like, we're living in the whole community, like most of our time is spent doing things with other people and, like, applying the things we've learned into like real life situations. So, in a way. It's like a sort of society where you can just learn to be yourself"

When asked directly what helped them in their personal growth, one participant responded, "I think the community, like being in a culture that's extremely accepting". Part of being in this community involves developing deep relationships with individual staff and students, as well as spending time with the community as a whole.

Opening up to others. Four youths described how the process of opening up to others and having their vulnerability met with care and trust was quite significant for them. Part of this journey involved learning to open up, how to have these types of conversations, etc. One youth described their relationships with their team members by saying, "these guys now, I've opened up to so much. And it's really helped and, yeah, I just have the deepest relationships with everybody here".

Connecting with others. Two youths mentioned the process of connecting with others as helpful in their therapeutic process. When asked what parts of the program had been most helpful in their journey, one youth answered, “the main things is making connections with people. Umm, being around people who I can relate with and talk to. I think most of my work has been figuring out how to connect with people you know?”

Feeling accepted. Two youths mentioned that feeling accepted by others helped them be authentic in their relationships and develop a healthy sense of self. One youth described their therapist as, “very accepting of the weird in me. If I find something embarrassing or something I’m ashamed of I feel very comfortable talking to her about it”.

Discussion

The goal of this study was to examine youths' journey of change through a multi-faceted intervention involving wilderness, residential, and family therapy. I conducted interviews to capture youths' descriptions of their challenges before entering the program, the changes they felt they had made, and the elements of the program they saw as important in their therapeutic progress. I interviewed ten youths at different stages of their journey through the program. I used a developmental-relational framework to approach this work, which is similar to Lerner's (1991) developmental-contextual framework but with a stronger focus on close relationships. The developmental-relational framework highlights how youths' development is shaped by the many contexts in which they are embedded, and how relationships with peers, parents and other individuals are central contexts for development. The results from this qualitative analysis are discussed below according to the four categories that emerged from the interviews: *Before Pine River*, *Changes Made in the Program*, *the Development of Self in Relationships*, and *Mechanisms of Change*.

Before Pine River

Experiences in relationships. The single most prevalent category in the *Before Pine River* domain was *Relationships*, which participants described mostly as unhealthy, distant, abusive and related to their experiences of loneliness. Given that healthy relationships are essential for healthy development (Pepler et al., 2011), it is likely that these distant and unhealthy relationships were a major factor impacting the development of the youths interviewed. The emergence of these categories is consistent with early research on the link between interpersonal relationships and loneliness, which demonstrates that loneliness results from a discrepancy between a person's desired level of interpersonal relationships and one's perceived level of those

relationships (Peplau & Perlman, 1982). The youths' reports of troubled relationships and loneliness are consistent with Scharf and colleagues' (2011) research indicating that adolescents whose parents were harsh reported the highest levels of loneliness and interpersonal problems. The PRI youths described the ways in which their relationships before the program undermined their sense of self and esteem. Their poor relationships, low self esteem, and loneliness may be interrelated. Vanhalst and colleagues (2013) found that self-esteem and loneliness reciprocally influence each and this association is partially mediated by perceived (but not actual) social acceptance.

There may be other factors at play in the link between the quality of relationships and loneliness that have not been assessed in the present study. Van Roekel and colleagues (2011) examined genetic and environmental factors associated with loneliness and found that adolescents with the DRD2 genotype who felt they had little support from parents experienced the highest levels of loneliness (van Roekel et al., 2011). Taken together, the results of the present study and other research in the field suggest that youths' experiences of loneliness are related to their relationships with parents and peers, as well as mental health concerns such as low self-esteem.

When describing their family relationships, youths discussed only negative aspects of their parental relationships, including: taking things their families did for granted, not trusting their families and being defiant to their parents. These findings are consistent with Bettmann and colleagues' (2011) study of participants in residential and wilderness therapy programs across the United States, which found that almost 45% of youths met criteria for a parent-child relationship disorder (Bettmann, Lundahl, Wright, Jaspersen, & McRoberts, 2011). More research is needed to explore the development and consequences of youths' negative

relationships with parents.

Although popular culture often portrays adolescence as a time of moodiness and frequent conflict with parents, research has challenged this view by showing that only 5% – 15% of youth experience emotional turmoil and extremely conflicted relations with parents during adolescence, and for those that do, these difficulties typically have their origins prior to adolescence (Collins & Laursen, 2004; Smetana, Capione-Barr, & Metzger, 2006; Steinberg, 1990). Not only is this type of negative parental relationship atypical, but research has also shown that high levels of conflict during adolescence are deleterious for adolescent development, relationships, and future adjustment (Laursen & Collins, 1994). Instead, family interactions that allow adolescents the opportunity to express independent thoughts and feelings while maintaining closeness and connection to parents facilitate higher self-esteem, better psychosocial competence, less depression, greater identity development, and more mature moral reasoning (Allen et al., 1994, Grotevant & Cooper, 1985; Hauser, Powers & Noam, 1991; Smetana et al., 2006; Walker & Taylor, 1991). These connections were evident in the main categories identified as problems before PRI in this study: the two most prevalent categories involved youths' relationship problems and mental health problems (e.g., low self-esteem, depression, etc.).

During the interviews, youths described their relationships with their parents before PRI as almost entirely negative (both in terms of their own behaviour and their parents' behaviour), whereas they expressed ambivalence when describing their peer relationships. Before entering the program, youths indicated that they had few friends, wanted acceptance from peers, had difficulty setting boundaries with peers, engaged in bullying behaviour, and/or were victimized by others. From youths' narratives, it appeared that their experiences in peer relationships were linked to their mental health problems and problem behaviours. The youths' perceptions are

consistent with a meta-analysis showing that being victimized by peers, particularly when coupled with neglect by peers (i.e., being unknown or ignored), is strongly linked to internalizing symptoms such as depression, anxiety, loneliness, and poor self-esteem (Hawker & Boulton, 2000).

At the same time, some youths in this sample described a number of positive friendships with peers and romantic partners. Positive peer relationships provide youth with developmentally salient opportunities to improve their social skills and social competence (Collins & Steinberg, 2006). These close peer relationships may have provided support to youth and helped them cope with difficult family relationships; however, they may have also maintained youth's substance use and problem behaviours. Previous research has highlighted the link between peer relationships and substance use in adolescents, as well as the negative effect that deviant peer processes may have on other aspects of youths' lives (Allen, Chango, Szwedlo, Schad, & Marston, 2012; Dishion, McCord, & Poulin, 1999).

Mental health problems. The youths in this study reported the presence of a wide range of mental health concerns before entering the program, including: feeling sad or depressed, having low self-esteem, having difficulties regulating their emotions, engaging in self-harm or having suicidal ideation, feeling anxious, carrying shame and guilt, suppressing their emotions, and experiencing physical health problems, such as not eating or sleeping due to mental health concerns. In youths' narratives, their mental health concerns were connected to their experiences in relationships, their substance use, as well as their thoughts and behaviours, which is consistent with previous literature. For example, research on court-involved adolescents revealed that disrupted family processes were significantly associated with higher levels of internalizing and externalizing problems, and substance abuse in both male and female youth (Gavazzi et al.,

2008). Youths also discussed their difficulties regulating their emotions, often describing themselves as ‘emotional’ or ‘ungrounded’. According to one study, the most common reason for admission to a residential treatment center for youth is the inability to control behavior in the community due to emotional dysregulation (Linehan, 1993). This difficulty in emotion regulation has been linked to youths’ development in the parent-child relationship context. For example, relationship quality in the mother-child relationship explained a large amount of variance in boys’ self-regulation after the age of 11 (Moilanen, Shaw, & Fitzpatrick, 2010). Youths’ self-harming behaviour and suicidal ideation may also have been connected to their experiences in relationships. Pinsani and colleagues found that a lack of trusted adults at home and school was associated with increased risk for making a past-year suicide attempt, above and beyond the effects of depressive symptoms and demographic factors (Pisani et al., 2012).

When asked to describe who they were before entering the program, youths discussed only negative aspects of themselves and their experiences (i.e., having low self-esteem, carrying shame and guilt, feeling anxious, etc.). Since developing an authentic and secure sense of self is one of the core tasks of adolescence, the PRI youths may have been struggling with this task before entering the program. Their self perceptions were consistent with research indicating that boys with identity issues experienced significantly more internalizing symptoms such as: anxiety, depression, peer problems and social withdrawal, and girls experienced more externalizing behaviours (Hernandez et al., 2006). Therefore, their lack of identity development may be reciprocally related to the mental health problems that these youths struggled with before entering the program.

Substance abuse. Youths in this study discussed their substance abuse in detail, including the functions of their substance abuse, the consequences of using substances and the

fact that they often used substances to suppress their emotions. Increased substance use from early to middle adolescence is predicted by behavioural and emotional dysregulation (Lansford et al., 2008). The PRI youths explicitly discussed their difficulties regulating their emotions and their use of substances to cope with difficult life events and intense emotional experiences, which is consistent with previous research showing the link between adolescents' emotional and dysregulation and substance use (Kirisci, Tarter, Mezzich, & Vanyukov, 2007; Lansford et al., 2008; Measelle, Stice & Hogansen, 2006). Youths in this study also discussed their substance use in relation to their mental health problems and relationships, which is consistent with previous research on the links between adolescent substance use, mental illness and engagement in delinquent activities (Lansford et al., 2008). Substance use in adolescence has been associated with the quality of youths' relationships. Adolescents with high closeness to parents score lower than those with low closeness on measures of psychological/social problems, such as drug use, depression, and antisocial behaviour (Allen et al., 1994; Steinberg & Silk, 2002). Peer relationships are also important. Youth in this study mentioned that they had difficulty setting boundaries with peers, which aligns with previous research connecting susceptibility to peer pressure with increased levels of substance use in adolescence (Allen et al., 2012). These findings highlighting the importance of relationships have important implications for substance-abuse treatment: they suggest it is not enough to target substance abuse behaviours alone. Youths' emotional regulation and relationships with parents and peers must also be considered in order to address some of the underlying risk processes related to their substance abuse.

Indifferent thinking. Youths in this study described their thought patterns before entering the program, which included being unmotivated, being in denial of the problems they were experiencing, not seeing a future for themselves, and not finding meaning in their lives. In

youths' narratives, these thought patterns were connected to their mental health problems, substance abuse, and experiences in relationships. Research on resilient youth has identified optimistic future expectations, personal goals, and a strong sense of purpose and future as key components of well-being (Seligman, 1990; Smokowski, Reynolds, & Bezruczko, 2000), indicating the need to target these thought patterns in interventions for struggling youth.

Self-destructive/other-destructive behaviours. Although research often focuses on the behavioural aspect of being 'at risk,' the youth themselves do not appear to notice or consider such overt behaviors until they have achieved some distance from their self/other destructive actions. Their relative lack of focus on their behaviour problems prior to entering the program stands in contrast to research with at-risk youth, who are often defined and classified by their behaviours. Tidwell and Garrett (1994) survey various definitions of the term "at-risk youth", highlighting that the term refers to those already exhibiting problem behaviours (i.e., involvement with the criminal justice system, school drop-out, etc.), as well as those exhibiting behavioural precursors (i.e. aggression, skipping classes, etc.). Similarly, Long (2001) defined at-risk youth as those who? engage in deviant or delinquent behaviours, such as dropping out of school, joining gangs, or abusing substances. Even parents of struggling adolescents focus heavily on the behavioural domain of their child's difficulties. For example, when parents were asked, "what precipitated sending your child to a residential program?", seven of the ten most prevalent answers related to the youth's behaviour problems (Bettmann et al., 2011). These included substance abuse, school problems, running away, general anger problems, stealing, legal trouble and aggression towards the family. The results from the current study suggest that initially, substance using youths are often not aware of the destructive nature of their behaviour problems and the distress that these behaviour present for others. After participating in PRI, they

begin to recognize that their behaviours may have stemmed from mental health and relationship problems. These stresses that underlie youths' behaviour problems must be addressed through intervention.

Developmental Challenges. Establishing autonomy is a central task in adolescence, with healthy development defined by youth establishing independence from parents and other adults while still remaining connected to important people in their lives (Collins, 1990; Steinberg, 1990). The youths in this study struggled with the task of being both autonomous and connected with others in their lives, as evidenced by their self-descriptions of being “narcissistic” and engaged in an autonomy struggle with adults in their lives. Previous research illustrates that difficulties establishing autonomy and relatedness with parents are linked to depressive affect and externalizing behaviours (Allen et al., 1994). Thus, youths' struggles with these developmental tasks are likely linked to their mental health concerns, relationships, and behaviours before entering the program.

Changes Made in the Program

Youths' perceptions of the changes that they made through the program were categorized into six areas: relationships, family, sense of self, feelings, thinking, and healthy behaviours. To highlight the changes youths felt they had made during the program, each category is discussed in comparison to the corresponding categories from the *Before Pine River* domain. A summary of the Before and After categories is provided in Table 1; note that more than one of the *Before Pine River* categories correspond with the same *After Pine River* category (see Table 1).

Table 1.

Comparison of the Before Pine River and After Pine River Domains

Before Pine River	After Pine River
Experiences in relationships – Family and Peer	Healthier relationships
Experiences in relationships – Family	Better family functioning
Mental health problems, Developmental challenges	Stronger sense of self
Mental health problems, Substance abuse	Emotional balance
Indifferent thinking	Insightful, future-oriented thinking
Substance abuse, Self and other destructive behaviours	Taking care of myself

Healthier relationships. The single greatest change youths discussed was their understanding of and ability to cultivate healthy relationships with different people in their lives. This change in relationships included gaining important interpersonal skills such as setting boundaries and developing trust. Many youths also mentioned having new expectations for the types of relationships they would like to have in the future and planning to re-define their relationships with old friends when they return home. They felt that in general, their relationships were closer and they experienced less loneliness than before coming to Pine River. This category represents a major departure from the loneliness and negative interaction patterns that youths reported having with family and peers before entering the program. Few studies of residential therapy for substance-addicted adolescents have explored the shifts in interpersonal relationships that occur as a result of participating in the program, even though these may be critical underpinnings for the process of change. Instead, outcomes of residential treatment for adolescents are most often focused on behavioural change. For example, in a meta-analysis of studies related to residential youth care, 76% of studies focused on outcomes related to ‘problem’ or ‘delinquent’ behaviour (Knorth et al., 2008). The four studies that did focus on changes in interpersonal skills, such as empathy or social skills, involved comparing specific

empathy-building or social skills training add-ons to the program to care-as-usual (Bleeker, 1990; Kolko, Loar, Sturnick, 1990; Nas, 2005; Pecukonis, 1990). Consistent with the results of the present study, a meta-analysis of wilderness therapy research found an increase in interpersonal adjustment and social skills, with an effect size of $d = 0.28$, after participation in wilderness therapy programs (Wilson & Lipsey, 2000). This meta-analysis and the youths' insights highlighted in the present study suggest a cluster of outcomes to be considered in program development and evaluation (e.g., changes in relationship capacity, quality of relationships, specific social skills such as setting boundaries and building trust, etc.).

Better family functioning. The second most prevalent category of changes identified by the youths was in their families. Youths described their relationships with family members as closer than they were prior to PRI. They also described their relationships with their families as having more trust, better communication, greater understanding, more respect, more structure, and more support. This finding is consistent with the limited research examining the impact of residential and wilderness therapy on adolescents' relationships with family members. One study of a therapeutic wilderness experience for youth with depression found a 47.5% decrease in family conflict after participating in the program (Norton, 2010). In their review of the wilderness therapy literature, however, McLendon and colleagues found no documentation of programs that focus specifically on family functioning throughout the therapeutic wilderness experience (McLendon, McLendon, & Petr, 2008). Similarly, there has been a call within the field of residential treatment to increase family involvement in treatment and develop program components geared to increasing family functioning (Demmitt & Joanning, 1998; Gorske, Srebalus, & Walls, 2003; Landsman, Groza, Tyler, & Malone, 2001; McLendon, McLendon, & Hatch, 2012; Stage, 1999; Sunseri, 2004). The majority of parents reported that parent-child

contact was limited during initial placement in a residential program? and, after the initial period of adjustment, subsequent parent-child contact was contingent on the child's behavior (Robinson, Kruzich, Friesen, Jivanjee, & Pullman, 2005). This practice goes against research confirming that positive relationships with parents are a key factor for youth receiving mental health treatment (Sanford, 1996). In one of the only studies examining family functioning after placement in residential treatment, the authors discovered that some youths reported less conflict in their family relationships, while other youths reported that the level of conflict was still quite high (Preyde, Cameron, Frensch, & Adams, 2011). The fact that youths in this study discussed changes within their family as the second most important type of change highlights the importance of family relationships in these youths' lives, and the need to focus on improving these relationships and better integration of them in residential treatment.

Stronger sense of self. Before Pine River, youths described their struggle for autonomy and identified as being narcissistic – problems suggesting that these youths were struggling with the core developmental tasks of adolescence (identity and interdependence). When asked to describe *themselves* before entering the program, they discussed their loneliness, mental health problems, and substance abuse. After their experiences at Pine River, youths have different self-perceptions, in that they describe themselves as self-confident, mature, and proud of who they are and what they have accomplished. These changes are consistent with previous research on the outcomes of residential and wilderness therapy, such as research showing that increased self-esteem and self worth are significant outcomes of wilderness therapy (Wilson & Lipsey, 2000; Norton, 2010).

Along with the changes in relationships discussed in the previous categories, these changes in self-confidence and maturity map onto the components of Lerner's model of Positive

Youth Development (Lerner et al., 2005). That is, youths in the present study expressed increases in the five domains of this model: confidence (*self-confidence* in the *sense of self* category), competence (*maturity* in the *sense of self* category), connection (*changes in relationships* and *family changes* categories), caring (*changes in relationships* and *family changes* categories), and coping skills (discussed in the *changes in feelings* category below). The emergence of a healthy sense of self represents a major developmental gain for the youths in this study.

Emotional balance. Another set of major changes the youths discussed were changes in the way they felt, which included being excited for the future and much happier. These change in future orientation and affect are consistent with previous research indicating that adolescents with mental health problems who participated in a wilderness therapy program showed an increase in mood and a reduction in depression after participation (Norton, 2010). There was also a negative correlation between adolescent depression and psychosocial development, indicating that youths' prior depression may have been impacting the development of their relationships and sense of self. The positive emotions that youths described experiencing after beginning the PRI program can be understood as both a factor that contributes to a better sense of self and healthier relationships and a consequence of these changes. Given that many youths described themselves as having difficulty regulating their emotions prior to PRI, a greater awareness of triggers may have helped them prevent strong, negative emotional reactions from developing, which may, in turn, have enabled them to improve their relationships and sense of self.

Insightful, future-oriented thinking. The youths described major changes in their ways of thinking, including thinking more about the future, having more insight into their behaviour and relationships, engaging in better decision-making and being more motivated to succeed in the future. Individuals with high levels of future orientation are less likely to use drugs and

alcohol as adolescents and over the course of their lives (Peters, Tortolero, Johnson, Addy, Markham, Escobar-Chaves, Lewis, & Yacoubian, 2005; Robbins & Bryan, 2004). These changes in future orientation, motivation, insight and decision-making abilities due to participation in residential treatment are an important area for future research.

Taking care of myself. The final category of changes was youths' decision to engage in healthy behaviours when they return home, such as continuing to avoid drugs and alcohol. Although participants spoke about the unhealthy behaviours they engaged in before the program, such as stealing, skipping school, drug use and other destructive behaviours, they seem to focus less on behaviours in their descriptions of changes. Instead, the core changes that the youths highlighted were in the categories of relationships and sense of self. The youths' perceptions stand in contrast to most research on residential therapy that focuses on behavioural, rather than self-in-relationships outcomes (Bettmann et al., 2011; Hair, 2005; Knorth et al., 2008).

Development of Self in Relationships

The growth discussed by youth seemed to occur at the intersection of their identity development and experiences in relationships. The youths explained how the development of their sense of self and their experiences in relationships are mutually reinforcing processes. For example, youths shared the importance of being authentic in their relationships as a way of both developing a sense of who they are and connecting with others. They mentioned the importance of being vulnerable with others, being empathetic, being honest, taking accountability, and expressing gratitude, as these were all part of who they wanted to be in the context of their relationships. The development of self in relationships is not only a change that youths recognized they had made, but it also represents the ongoing process of constructing a sense of self through connections with others. In the model proposed for this study, this process of

identity formation in the contexts of relationships was conceptualized as the driving force behind many of the other transformations youths made, including more self-confidence, self-described maturity and better relationships with individuals in their lives. This way of understanding identity development is consistent with ecological perspectives on social development, which emphasize the primary role of relationships in development (Bronfenbrenner, 1989; Dishion, French, & Patterson, 1995; Hinde, 1989; Patterson & Reid, 1984). The development of a sense of self in relationships also relates to Harter's focus on the developmental and sociocultural contexts through which the self is constructed (Harter, 1999, Harter, 2006, Harter, 2012). In examining the self-worth of adolescents across different relational contexts (parents, teachers, male classmates, female classmates), Harter and colleagues found a four factor solution with negligible cross-loadings, indicating that youth had major differences in self worth across these diverse relational contexts (Harter, Waters, & Whitesell, 1998). They further discovered that perceived support or validation for oneself as a person from those in each relational context predicted self-worth in that context. Further research on how the self develops in the context of relationships is needed and this developmental process may be particularly salient in research on changes through intervention.

Mechanisms of Change

This study was designed as a first step in assessing mechanisms of change through residential treatment by capturing youths' descriptions of the elements of the program that they found to be particularly important in their journey of change. Knorth and colleagues (2008) identified the need for research on residential therapy that not only describes the program, but also helps to identify the effective aspects of residential treatment. Following a meta-analysis of residential programs, they reported that few provided information about the program itself, leading them to describe the intervention package as a "black box" (Axford, Little, Morpeth, &

Weyts, 2005; Knorth et al., 2008). In the present study, the participants indicated that their experiences in relationships in the PRI program were predominately positive and characterized by connection, acceptance, and a feeling of being in community. The youths described how they were able to make positive changes in their family relationships due to the family groups, structured family time, letter of accountability, placement away from home, and the fresh start they were able to have with their parents. The way the program is structured, in terms of the length of time, stage model, and slow transition back home, was identified by the youths as partly responsible for the changes they had made at PRI. The youths also identified the wilderness therapy (OLE) component and experiences in nature as contributing to their positive growth and development.

Development through critical relationships. The youths described their relationships with staff, fellow students, and therapists as the single most important mechanism that helped them in their journey of change. This finding is consistent with surveys of youth placed in residential care who cite relationships with staff as among the most helpful and positive aspects of their residential experience (Zimmerman, Abraham, Reddy, & Furr, 2000; Anglin, 2004; Devine, 2004; Gallagher & Green, 2012; Smith et al., 2004). In a qualitative study of group home experiences, youth reported finding control more acceptable from staff with whom they had a relationship (Gallagher & Green, 2012). The relationship components of residential treatment, whether formalized or informal, have been identified by youth clients and staff as the most helpful dimensions, with planned and/or spontaneous social interactions between staff and clients being perceived as highly valuable and important (Zimmerman et al., 2000). These findings point to the importance of training staff in residential treatment centres to relate with youth in ways that foster their optimal development.

There is extensive research support for the link between therapeutic alliance and outcomes in psychotherapy (Martin, Garske, & Davis, 2000; Karver, Handelsman, Fields, & Bickman, 2006; Shirk, Karver, & Brown, 2011). There has been very little research, however, on therapeutic alliance in adolescent residential care. One study on the trajectory of change in therapeutic alliance over a 12-month period based on both youth and staff ratings of alliance revealed that there were major discrepancies between youth and staff ratings of alliance (Duppong Hurley, Lambert, Van Ryzin, Sullivan, & Stevens, 2013). This is an important area for future research because the quality of the relationship between struggling youths and staff members in a residential program may be one of the most critical mechanisms of change, based on participant accounts in this study.

The presence of a positive peer culture and close relationships with other students was mentioned as important by all ten youth interviewed. Although there is much less research on peer relationships in residential treatment, one study of a wilderness therapy program showed that a positive group experience was associated with a statistically significant decrease in depression (Norton, 2010). Earlier research on wilderness therapy suggests that “the peer group is often one of the most powerful contexts in adolescence for identity development and intimacy...the group may provide relational experiences that can help rework or resolve developmental crises and dysfunctional patterns that were not dealt with earlier” (Miles & Priest, 1999). Similarly, participants in the present investigation spoke to the impact that relating to peers in a supportive, honest way had on their progress. More research within the residential treatment field is needed to understand the impact of positive peer relationships on treatment outcomes and how to promote these types of relationships within a treatment setting.

Elements that facilitate the development of self in relationships. Youths in this study

mentioned five elements that facilitated the development of their sense of self in relationships, which included: process group, practicing skills, giving and accepting feedback, check-ins, and Dialectical Behaviour Therapy (DBT). Three of these elements (process group, giving and accepting feedback and check-ins) are types of structured experiences youth had in relationships with other youth and staff in the program. Check-ins are a way for youth to connect with other staff and students at any time during the day, and involve a conversation about how they are feeling at the time. During process group, youth share their emotions with their team, make requests for support, and learn how to handle conflict constructively by working through problems with staff support. They also learn how to give both positive and negative feedback, such as telling someone how their behaviour is affecting them. Youth learn how to respond to such feedback from others, and begin to integrate these skills into their relationships outside of process group. Abraham and colleagues examined adolescents' perceptions of both process group and specialty group therapy and discovered that adolescents rated on-going process groups more helpful for relating to staff and peers, and specialty groups were considered more helpful for cognitive, social, and interpersonal skill development (Abraham, Lovegrove-Lepisto, & Schultz, 1995).

Dialectical Behaviour Therapy (DBT) was developed as a treatment for parasuicidal behaviour in women with borderline personality disorder and has been adapted for a number of other populations, including adolescents with emotional and behavioural difficulties (Robins & Chapman, 2004). After participating in a modified DBT program, a group of youths diagnosed with oppositional defiant disorder reported a significant reduction in externalizing and internalizing symptoms (Nelson-Gray et al., 2006). Skills taught in DBT include distress tolerance, mindfulness and a variety of interpersonal skills, and the youth in this study mentioned the importance of practicing skills they had learned in DBT, group or individual therapy in their

relationships with staff and peers. Youths' identification of effective program elements sheds light on the specific processes through which they learn how to build positive relationships with peers and staff. Further research is needed to measure the amount of variance in the process of change that may be accounted for by each of these program elements.

Elements that facilitate changes in the family. Youths identified four elements that helped facilitate changes in their family relationships: participating in family groups/structured family time, writing their letter of accountability, getting a fresh start with their parents, and being away from home. The residential therapy literature points to the importance of having frequent contact with parents and participating in family therapy (Stage, 1999; Sunseri, 2001). Positive family communication has been identified as a necessary therapeutic component in the treatment of adolescent issues (Robinson et al., 2005); however, Norton (2010) found that positive communication with parents/guardians occurred only after time spent away from the family. Harper and Russell (2008) referred to this as "meaningful separation" and describe it as an important time for youth to reflect on how their negative behaviors affected their families, which is congruent with participants' narratives of their experiences in the current study.

Program structure. Youth mentioned two structural elements of the PRI program that were helpful. These included the program length (approximately 22 months on average) and the progression through stages with clear developmental goals (e.g., honesty, accountability, etc.), with progression to the next stage based on achievement of goals instead of time. The finding that youth felt they needed to be in the program for a long period of time stands in contrast to previous residential treatment research which asserts that most therapeutic gains are made in the first 6 months of treatment (Hair, 2005). The emphasis on transitioning slowly, however, is in line with previous research stating that transition planning and pacing must involve families and

allow enough time to adjust slowly (Spencer & Powell, 2000). From youths' perspectives, it was important that they could take as long as needed to master the tasks in each stage, to be "stage dropped" if they were regressing back to old patterns, and have their progress through the program trailed to their own trajectory. For these youths at PRI who had developed mental health and addiction problems over years, it seems to be important to recognize that it takes a long time to catch up developmentally, repair relationships, and embark on a healthy pathway.

Wilderness Therapy. The Outdoor Leadership Experience (OLE) component and experiences in nature were mentioned as being important in youths' therapeutic process. This finding is consistent with previous research on the effectiveness of wilderness therapy programs for youth struggling with emotional and behavioural problems (Davis-Berman & Berman, 1994; Hill, 2007; Klinger, 2009; Norton, 2010; Russell, 2003; Vissell, 2004; Wilson & Lipsey, 2000). In one study, youth reported the most significant aspects of the therapeutic wilderness program as the opportunities for time spent in nature, challenge and adventure, and contemplation (Norton, 2010). The results of the present study are also consistent with the literature on ecopsychology, which highlights that time spent in natural environments facilitate the healing process (Roszak, Gomes & Kanner, 1995). Moreover, the OLE removes youth from their previous context, provides a new context for development and gives youth the space to reflect on their lives. In this stage, youth begin to detox, re-connect with their circadian rhythms and start to form healthy relationships with staff and peers. This stage of the program is crucial for initial changes, such as greater insight and readiness to change; processes that continue once the student graduates the wilderness and comes to the campus.

Positive experience in relationships. The final component of the program that youths cited as facilitating their positive outcomes was their experiences in relationships with staff and

students in the program, including: being part of a community, opening up to others, connecting with others and feeling accepted. Previous research on youths' perceptions of treatment effectiveness have confirmed that interpersonal relationships and the expression of thoughts and feelings are perceived as very helpful by youths (Zimmerman et al., 2000). These experiences may facilitate healing and help youth work through attachment issues, although more research is needed to explore how these experiences in relationships relate to specific outcomes.

Limitations

One limitation of the present study is its exploratory nature. Researchers are just beginning to understand the developmental tasks addressed through residential and wilderness therapy, thus it is difficult to determine what research and interview questions are most relevant to youth. Ideally, I would have liked to engage youth in every step of the research, much like Participatory Action Research. With youths' participation from the beginning, the salient aspects of their experiences could have influenced all stages of the research process. A participatory action research project would, however, have been challenging, given the ever-changing composition of youth moving through the program. In future research, it would be beneficial to work with youth as research partners instead of participants.

Another limitation of this study is a possible sampling bias that arises due to two main factors. Firstly, six youth approached me about their interest to participate, and the other four youth agreed to participate. For this reason, the findings of this study may be limited to participants who were willing to be interviewed, and thus likely those who felt they had benefitted/were benefitting from the program, and this sample may be different from the other youth at Pine River who were less interested in participating. Secondly, this sample of youth at Pine River may not generalize to other groups of youth in residential care. All ten participants

were white and generally from a higher SES background, although some participants mentioned their experiences growing up in poverty. It is essential to conduct research with other residential programs to determine the extent to which these findings generalize to other youths.

In future research, it might be advantageous to also interview youths who graduated from PRI a few years previously to determine the lasting impact of the program. Previous research in wilderness therapy has documented a ‘halo effect’, in which respondents provide higher scores if given the survey on the same day or immediately following the program (Graham & Robinson, 2007; Norton, 2010). Since the participants were all enrolled in the program, their narratives of their experiences and the impact of the program may have been more positive than if they had been interviewed several months or years after finishing the program at PRI.

Moreover, to get a more complete picture of the changes youth make in themselves and in their relationships, it would be useful to interview parents and other people with whom the youth has a close relationship. Since I am interested in the transactional nature of relationships, I believe it is important to investigate how the family as a whole is affected by the changes youth have made after participating in interventions involving family therapy. All of these limitations present important avenues for future research.

Implications for prevention and intervention

Several implications for prevention and intervention can be drawn from the youths’ perspectives of their challenges before the program and the elements of the PRI program that were most helpful in enabling them to move onto a healthier pathway. Given the central role of relationships in youths’ description of their challenges before entering the program, cultivating healthy relationships with parents and peers emerges as a primary process in preventing issues such as substance abuse.

Residential treatment programs for youth often focus on decreasing problem behaviours, such as substance abuse or truancy. Although these behavioural changes are important, the youths' perspectives from this study illustrate that behaviours such as substance use are often coping mechanisms that youth use to deal with emotional/mental health/relationship issues. Their perspectives indicate that it is not enough to target these behaviour problems in isolation, nor is it adequate to expect the youth to make changes without facilitating change in the family. This study has highlighted the many factors that precipitate and maintain youths' problems, such as mental health and relationship issues, which must be addressed through treatment.

This study also highlights the value of using a developmental lens to understand the issues that youth struggle with when seeking treatment, as well as the outcomes that can be targeted in interventions for struggling youth. Central tasks in adolescence include developing a secure and authentic sense of self and developing the capacity to relate to others in ways that produce mutually satisfying relationships. An important function of interventions for youth may be to accelerate development in these key areas; therefore, it is essential to tailor interventions to enable struggling youth to accomplish these tasks and to measure changes in relationships and sense of self at various stages of the treatment process. For example, the most frequent change that youths discussed was their increased understanding of and ability to cultivate healthy relationships with different people in their lives. There has been a call within the field of residential treatment to increase family involvement, integrate families through family therapy and supports, and measure changes in family functioning over the course of treatment (Affronti & Levison-Johnson, 2009). Given the challenges that youths described having with peer relationships before beginning the program and the central role relationships with peers played in

youths' journey of change, it is also essential for residential treatment programs to focus on facilitating and measuring changes in relationship capacity with peers and other individuals.

The relationship components of residential treatment, including relationships with peers and staff, were identified as the most influential aspects of the program. These findings highlight the importance of training staff in residential treatment centers to be attuned to the quality of adolescents' relationships and the nature of their developmental tasks and challenges. To ensure youth have positive experiences in relationships, it is essential for residential treatment programs to create a positive peer culture and teach youth how to support each other's journey of change. Future research is needed to examine how specific experiences in relationships at residential treatment centers relate to the diverse range of outcomes youth make during these programs.

The youths' voices in this study help to elucidate the potential for remarkable change for youths struggling with mental health struggles and substance use, when they are given developmentally-salient opportunities to understand themselves, their behaviours, and their relationships. Through lengthy and intensive treatment, youths can move from a deeply troubled pathway onto a healthy one that should provide the foundation for a connected, joyful, and meaningful life.

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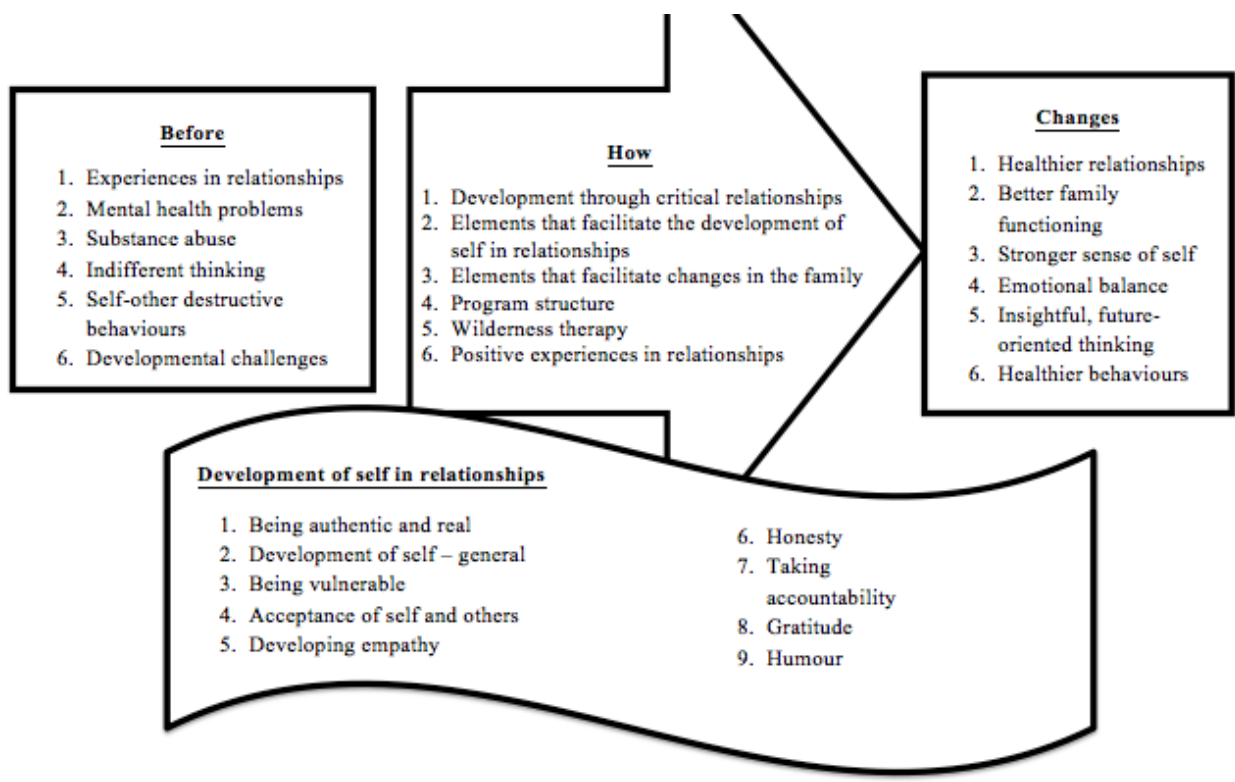


Figure 1. Proposed Model of the Associations Between the Four Domains

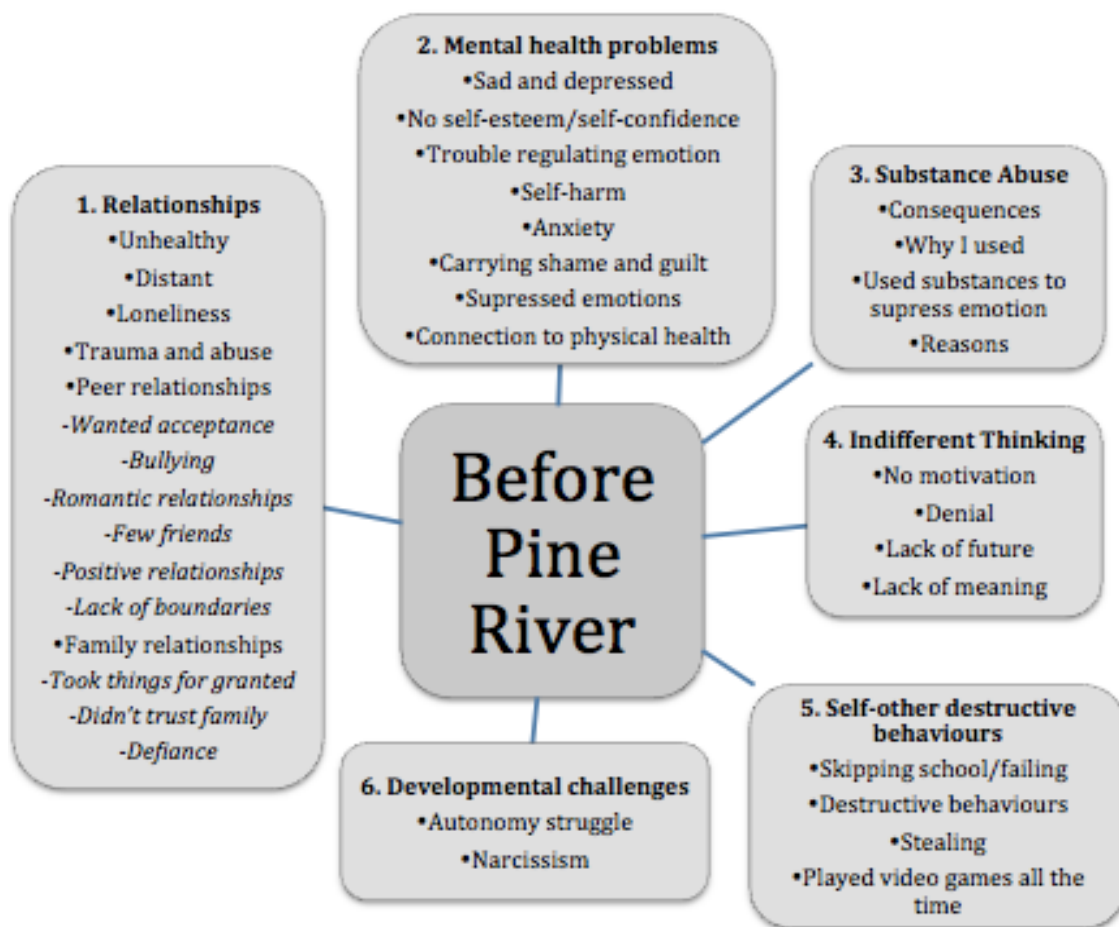


Figure 2. Summary of Domain 1 - Before Pine River

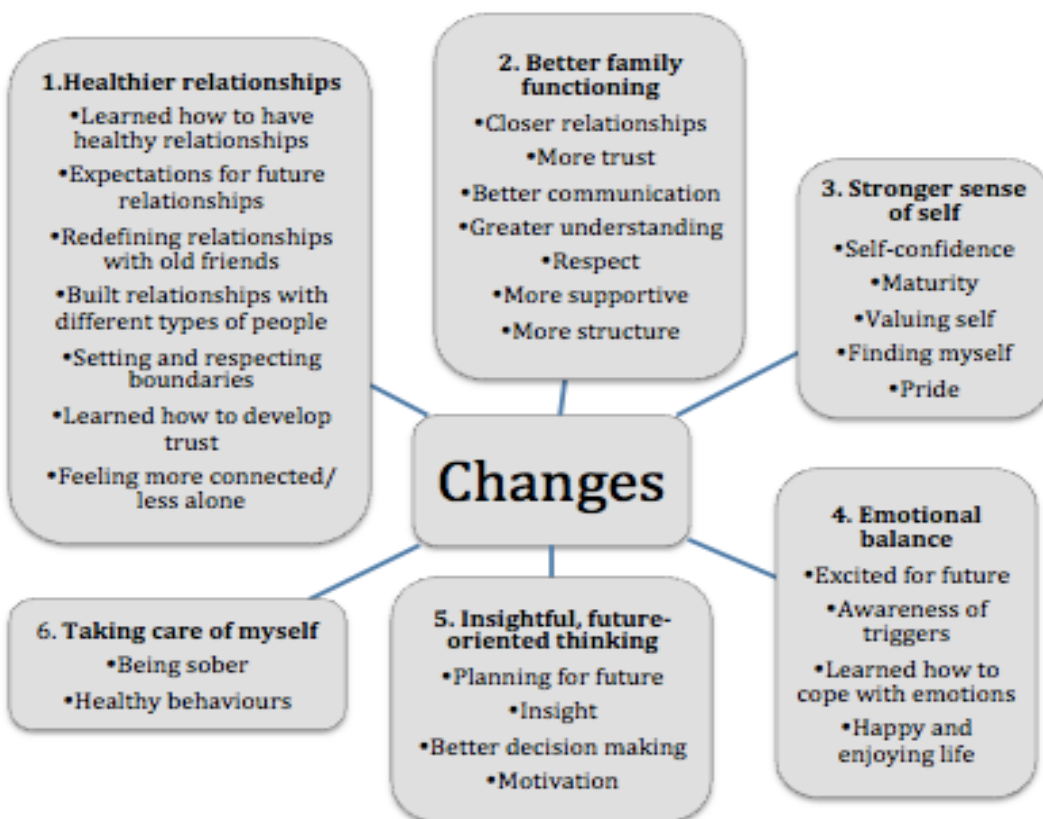


Figure 3. Summary of Domain 2 - Changes Made in the Program

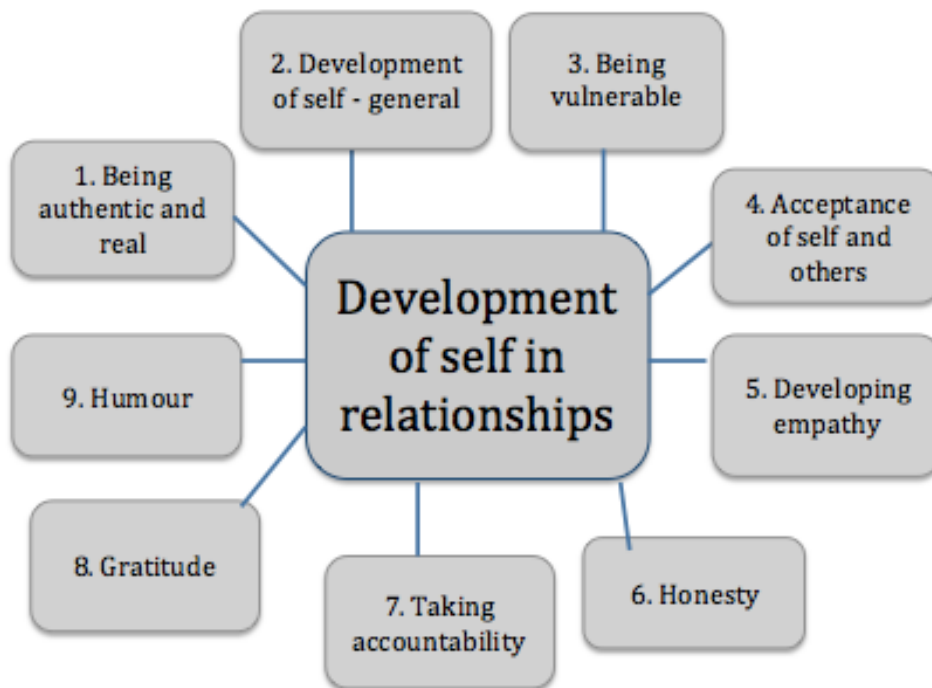


Figure 4. Summary of Domain 3 - Development of Self in Relationships

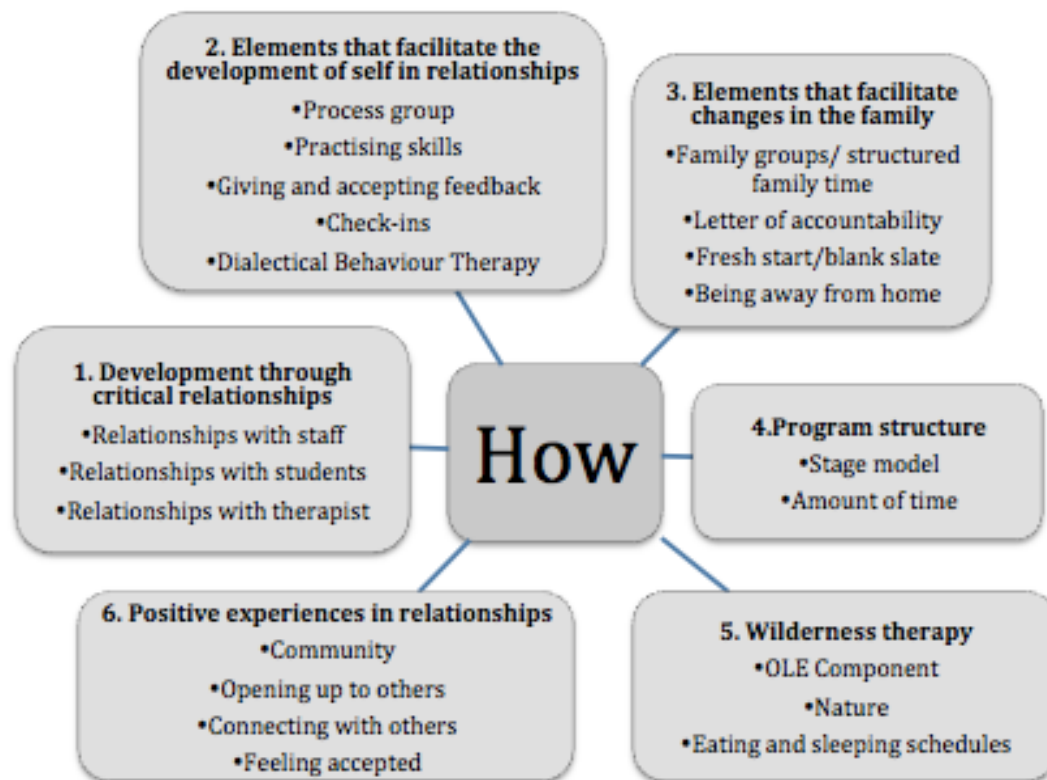
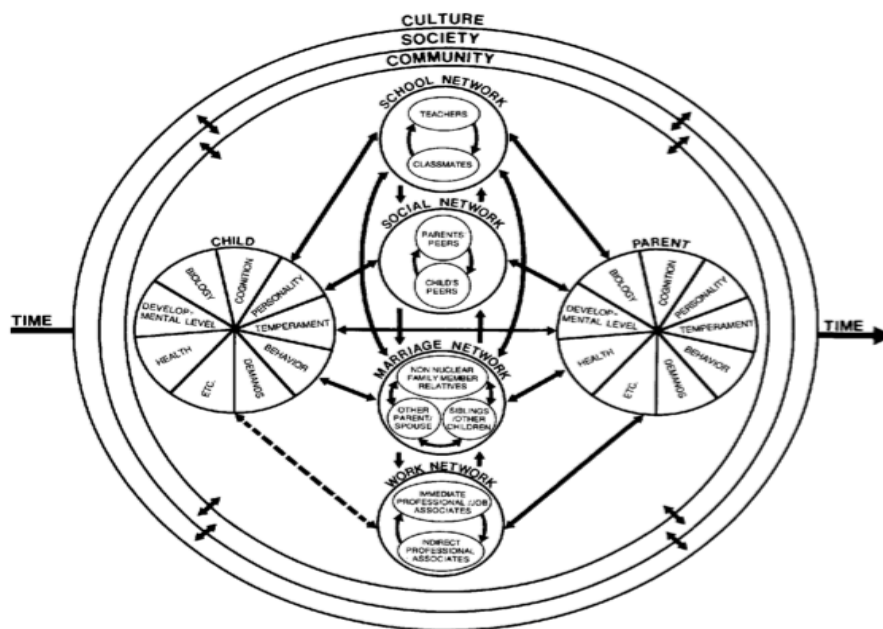


Figure 5. Summary of Domain 4: Mechanisms of Change (How)

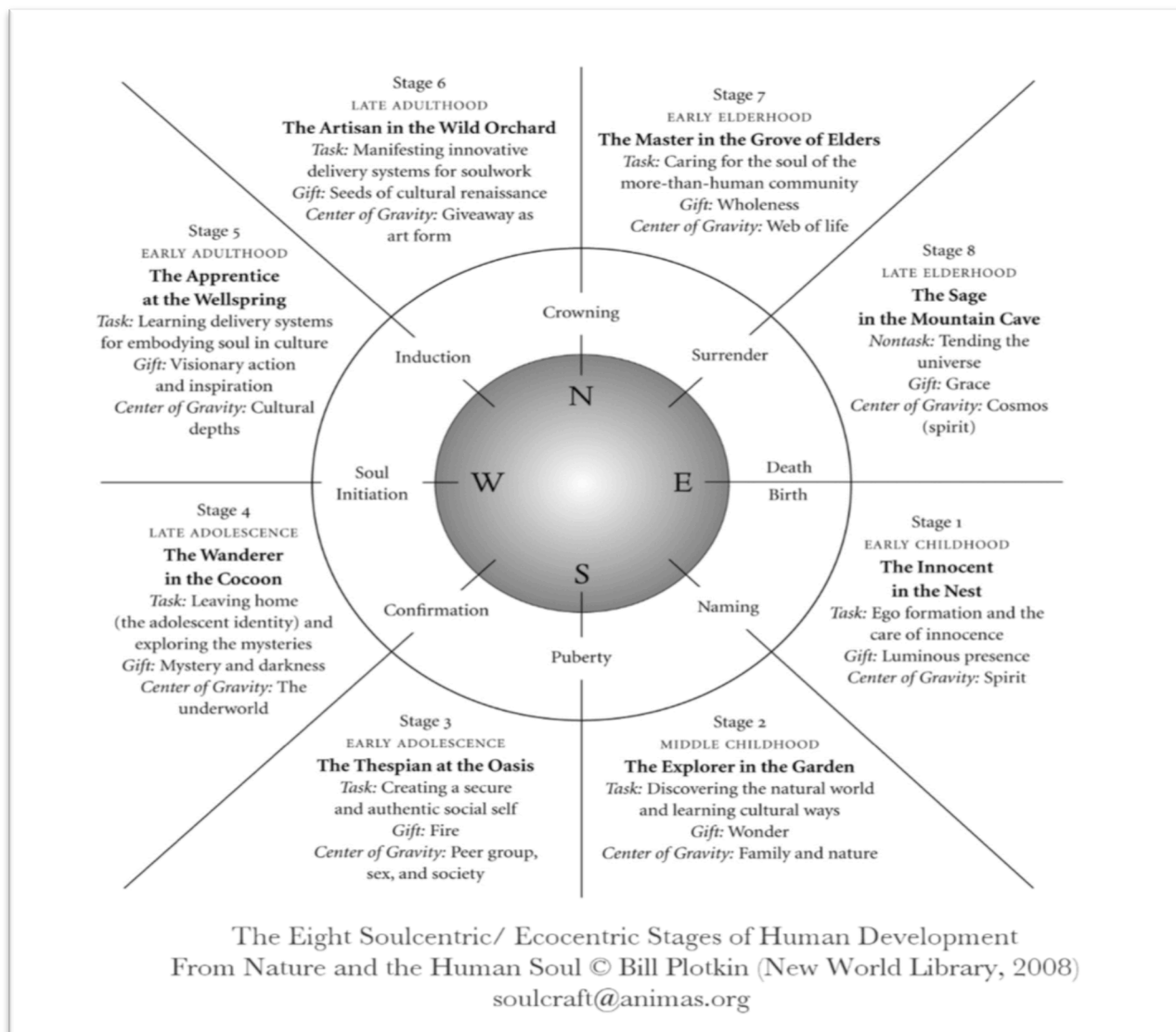
Appendix A: Lerner's (1991) Developmental Contextual Model



Appendix B: Erikson's (1959) Stages of Psychosocial Development

Approximate Age	Psycho Social Crisis
Infant - 18 months	Trust vs. Mistrust
18 months - 3 years	Autonomy vs. Shame & Doubt
3 - 5 years	Initiative vs. Guilt
5 - 13 years	Industry vs. Inferiority
13 - 21 years	Identity vs. Role Confusion
21 - 39 years	Intimacy vs. Isolation
40 - 65 years	Generativity vs. Stagnation
65 and older	Ego Integrity vs. Despair

Appendix C: Plotkin's (2008) Model of Ecocentric Development



Appendix D: Informed Consent Form for Parents



Informed Consent Form- PARENT

The Impact of Intervention on Struggling Adolescents' Understanding of Self-in-Relationships

Primary Researcher: Julia Riddell, York University

Faculty Supervisor: Dr. Debra J. Pepler, C. Psych, York University

INFORMED CONSENT

You are being asked to consider allowing your adolescent to participate in a research study. A research study is a way of gathering information on a treatment or procedure, or to answer a question about something that is not well understood.

This form explains the purpose of this research project, provides information about the study including the procedures involved, and possible risks and benefits, and the rights of participants.

Please read this form carefully and if you have any questions, do not hesitate to contact the principal investigator. Feel free to discuss it with your friends or family if you wish. Please ask the principal investigator to clarify anything you do not understand or would like to know more about. Make sure all your questions are answered to your satisfaction before deciding whether to participate in this research study.

INTRODUCTION

The purpose of this study is to understand the changes that youth make as a result of their participation in Pine River Institute. The researcher is interested in whether youth feel differently about themselves because of their participation at Pine River. Also, she is hoping to understand whether this intervention may impact the relationships youth have with friends and family.

The time commitment for each participant in the study is approximately one hour. During this time the participant will take part in an audio-recorded conversation with an interviewer.

WHY IS THIS STUDY BEING DONE?

The purpose of the study is to understand how Pine River may impact youths' development. During adolescence, youth are engaged in developing a sense of who they are, as well as learning how to have positive relationships with people in their lives. Many of the youth who come to Pine River may be struggling with these tasks, so we are conducting this study to ask youth about how Pine River has impacted their sense of self and experience in relationships. Ultimately, we hope that this study will enable us to better understand how youth change and what parts of the program help them to change. We hope this will lead to better treatment for youth.

WHAT WILL HAPPEN DURING THIS STUDY AND WHAT ARE YOUR RESPONSIBILITIES?

Your adolescent is invited to participate in an interview with the researcher. The researcher will ask questions about their life before they came to Pine River, including how they felt about themselves and their relationships with others. They will be asked to discuss their experiences at Pine River and what changes they feel they've made. During the interview, they will be asked to share their experiences and point of view to the extent that they feel comfortable. After the interview is done, they will have an opportunity to ask any questions that they might have about the interview or the study.

WHAT WILL HAPPEN TO THE INFORMATION YOU PROVIDE THROUGH YOUR PARTICIPATION IN THIS STUDY?

The interview will be audio-recorded and transcribed. The audio files will be transferred to a password-protected computer and will be deleted from the audio-recorder. Only the researcher, with whom the interview will be conducted, will be listening to the audio files. The audio files and text documents will be stored on the researcher's computer for five years, after which time they will be deleted.

Your adolescent will not be identified by name on any document. Their identity will remain confidential. Anything they say during the interview will be confidential with one notable exception: if participants state that they are in danger of harming themselves or others, the researcher is legally required to report this to the clinical staff at Pine River. The staff has a duty-to-report protocol that they will use to follow-up with this information. **Other than the duty to report, the confidentiality of all information will be provided to the fullest extent possible by law.**

The findings will be published in academic journals and presented to professional and general audiences. For the most part, the researcher will report on general patterns across all participant responses, instead of an individual participant's response. However, it is possible that word-for-word excerpts from the interview may be used in presentations and reports. Were this to occur, your adolescent's identity would be concealed and protected. However, it is possible that your adolescent (or people who

know them well) might recognize words-in-print or spoken in a presentation as belonging to them, although their name will never be associated with any quote.

HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

About 10 youth will take part in this study. Two participants from each stage of the program will be randomly selected to participate.

WHAT ARE THE RISKS, HARMS AND BENEFITS OF PARTICIPATING IN THIS STUDY?

Your adolescent may or may not benefit directly from participating in this study. They may find that sharing their experiences with someone else is therapeutic and talking about their struggles might bring some useful insights or new perspectives. They may also find the interview is a good opportunity to have their voice heard and valued.

Since your adolescent frequently participates in individual and group therapy as part of their work at Pine River, is it unlikely that this study will be more stressful than an average day at Pine River. However, given the personal nature of the interview questions, they may feel slightly uncomfortable during the interview. For example, there are questions about the issues they faced before coming to Pine River, which may be a sensitive topic for them. Be assured that they do not need to answer any question that makes them feel uncomfortable.

There is a risk that your adolescent may become upset during the interview, although the questions asked do not go beyond the topics that youth discuss with the clinical staff at Pine River. If youth do become upset during the interview, they will be asked if they would like to stop the interview and speak with a clinical staff member. The researcher will give your adolescent the option of either seeking out a staff member themselves, or having the researcher inform a staff member on their behalf.

CAN PARTICIPATION IN THIS STUDY END EARLY?

Your adolescent is free to stop participating in this study at any time you choose with no effect on the services you receive at Pine River. Your adolescent may refuse to answer any questions or leave the interview at any time. If your adolescent chooses to withdraw from the study at any point, they may request to have the information collected up to that point destroyed.

WILL THERE BE COMPENSATION?

Your adolescent will not be paid to participate in this study. To show her appreciation, the researcher will host a pizza party for all youth at Pine River.

HOW DO I KNOW IT IS SAFE TO PARTICIPATE?

This study has been reviewed and approved for compliance to research ethics protocols by the Human Participants Review Subcommittee (HPRC) of York University. If you have any questions about your rights as a research participant, you may contact Alison Collins-Mrakas, Senior Manager & Policy Advisor for the Office of Research Ethics, 309 York Lanes, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

QUESTIONS?

The purpose of the study is to acquire in-depth knowledge about how Pine River helps youth develop their sense of self and relationships. The primary investigator, Julia Riddell, is a graduate student in the Clinical-Developmental Program at York University. If you have any questions about this project, you may contact her by email at jriddell@yorku.ca or by phone at 647-787-2848. Her supervisor is Dr. Debra Pepler and she can be reached at pepler@yorku.ca. You may also contact the Psychology Graduate Program office at 416-736-5290 or email gradpsyc@yorku.ca

HOW CAN I FIND OUT ABOUT THE RESULTS OF THIS STUDY?

If you or your adolescent would like to receive a copy of the study results, please email the primary researcher at jriddell@yorku.ca

DOCUMENTATION OF INFORMED CONSENT-PARENT

The Impact of Intervention on Struggling Adolescents' Understanding of Self-in- Relationships

Name of Participant: _____
(Please print)

Name of Parent/Substitute Decision-Maker: _____
(Please print)

Relationship to Participant: _____
(Please print)

Parent/Substitute decision-maker

By signing this form, I confirm that:

- I understand what my adolescent is being asked to do in this study
- I understand the risks and benefits of my adolescent participating in this research study
- I have read each page of this form
- I agree to allow my adolescent to participate in this study

Name of parent/substitute
decision-maker (print)

Signature

Date

Statement of Researcher

I acknowledge my responsibility for the care and well being of the above participant, to respect the rights and wishes of the participant as described in this informed consent document, and to conduct this study according to all applicable laws, regulations and guidelines relating to the ethical and legal conduct of research.

Name of researcher (print)

Signature

Date

Appendix E: Informed Consent Form for Participants



Informed Consent Form- PARTICIPANT

The Impact of Intervention on Struggling Adolescents' Understanding of Self-in-Relationships

Primary Researcher: Julia Riddell, York University

Faculty Supervisor: Dr. Debra J. Pepler, C. Psych, York University

INFORMED CONSENT

You are being asked to consider participating in a research study. A research study is a way of gathering information on a treatment or procedure, or to answer a question about something that is not well understood.

This form explains the purpose of this research project, provides information about the study including the procedures involved, and possible risks and benefits, and the rights of participants.

Please read this form carefully and if you have any questions, do not hesitate to contact the researcher. Feel free to discuss it with your friends or family if you wish. Please ask the researcher to clarify anything you do not understand or would like to know more about. Make sure all your questions are answered to your satisfaction before deciding whether to participate in this research study.

INTRODUCTION

The purpose of this study is to understand the changes that youth make as a result of their participation in Pine River Institute. The researcher is interested in whether youth feel differently about themselves because of their participation at Pine River. Also, she is hoping to understand whether this intervention may impact the relationships youth have with friends and family.

The time commitment for each participant in the study is approximately one hour. During this time the participant will take part in an audio-recorded conversation with an interviewer.

WHY IS THIS STUDY BEING DONE?

The purpose of the study is to understand how Pine River may impact youths' development. During adolescence, youth are engaged in developing a sense of who they are, as well as learning how to have positive relationships with people in their lives. Many of the youth who come to Pine River may be struggling with these tasks, so we are conducting this study to ask youth about how Pine River has impacted their sense of self and experience in relationships. Ultimately, we hope that this study will enable us to better understand how youth change and what parts of the program help them to change. We hope this will lead to better treatment for youth.

WHAT WILL HAPPEN DURING THIS STUDY AND WHAT ARE YOUR RESPONSIBILITIES?

You are invited to participate in an interview with the researcher. The researcher will ask you questions about your life before you came to Pine River, including how you felt about yourself and your relationships with others. You will be asked to discuss your experiences at Pine River and what changes you feel you've made. During the interview, you will be asked to share your experiences and point of view to the extent that you feel comfortable. After the interview is done, you will have an opportunity to ask any questions that you might have about the interview or the study.

WHAT WILL HAPPEN TO THE INFORMATION YOU PROVIDE THROUGH YOUR PARTICIPATION IN THIS STUDY?

The interview will be audio-recorded and transcribed. The audio files will be transferred to a password-protected computer and will be deleted from the audio-recorder. Only the researcher, with whom the interview will be conducted, will be listening to the audio files. The audio files and text documents will be stored on the researcher's computer for five years, after which time they will be deleted.

You will not be identified by name on any document. Your identity will remain confidential. Anything you say during the interview will not be shared with anyone else with one notable exception: if you say that you are in danger of harming yourself or others, the researcher is legally required to report this to the clinical staff at Pine River. The staff has a duty-to-report protocol that they will use to follow-up after receiving this information. **Other than the duty to report, the confidentiality of all information will be provided to the fullest extent possible by law.**

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HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

About 10 youth will take part in this study. Two participants from each stage of the program will be randomly selected to participate.

WHAT ARE THE RISKS, HARMS AND BENEFITS OF PARTICIPATING IN THIS STUDY?

You may or may not benefit directly from participating in this study. You may find that sharing your experiences with someone else is therapeutic and talking about your struggles might bring some useful insights or new perspectives. You may also find the interview is a good opportunity to have your voice heard and valued.

Since you frequently participate in individual and group therapy as part of your work at Pine River, is it unlikely that this study will be more stressful than an average day at Pine River. However, given the personal nature of the interview questions, you may feel slightly uncomfortable during the interview. For example, there are questions about the issues you faced before coming to Pine River, which may be a sensitive topic for you. Be assured that you do not need to answer any question that makes you feel uncomfortable.

There is a risk that you may become upset during the interview, although the questions asked do not go beyond the topics you discuss with the clinical staff at Pine River. If you do become upset during the interview, you will be asked if you would like to stop the interview and speak with a clinical staff member. The researcher will give you the option of either seeking out a staff member yourself, or having the researcher inform a staff member on your behalf.

CAN PARTICIPATION IN THIS STUDY END EARLY?

You are free to stop participating in this study at any time you choose with no effect on the services you receive at Pine River. You may refuse to answer any questions or leave the interview at any time. If you choose to withdraw from the study at any point, you may request to have the information collected up to that point destroyed.

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HOW CAN I FIND OUT ABOUT THE RESULTS OF THIS STUDY?

If you would like to receive a copy of the study results, please email the primary researcher at jriddell@yorku.ca

DOCUMENTATION OF INFORMED CONSENT-PARTICIPANT

The Impact of Intervention on Struggling Adolescents' Understanding of Self-in-Relationships

Name of Participant: _____
(Please print)

Participant

By signing this form, I confirm that:

- This research study has been fully explained to me and all of my questions have been answered
- I understand what I am being asked to do in this study
- I have been informed of the risks and benefits of participating
- I have read each page of this form
- I agree to participate in this study

Name of participant (print)

Signature

Date

Statement of Researcher

I acknowledge my responsibility for the care and well being of the above participant, to respect the rights and wishes of the participant as described in this informed consent document, and to conduct this study according to all applicable laws, regulations and guidelines relating to the ethical and legal conduct of research.

Name of researcher (print)

Signature

Date

Appendix F: Interview Guide

My name is Julia and I'm a graduate student from York University. I'm interested in the journey of change that individuals go through in the program here at Pine River. After reading the consent form, do you have any questions? I just want to remind you that your participation in the study is voluntary, meaning you are free to stop participating at any time. If I ask you a question that makes you uncomfortable, just let me know and we can skip to the next question or stop the interview all together. Anything you say to me will remain completely confidential with one important exception: if you mention that you're planning to hurt yourself or someone else, I am required to report that. Other than this one exception, no one else will know anything that you said during this interview. When I report the results from this study, I'll be mentioning general themes that are said across participants and your name will never be mentioned. I may use quotes that capture your words directly, so it is possible that someone who knows you well may recognize these words as belonging to you, but again I will never use your name. Do you have any questions before we begin?

1. Please tell me about your life before you come to Pine River in as much detail as you feel comfortable.
 How did you feel about yourself?
 Would you say that you felt connected with people in your life?
 How much control did you have over the key decisions in your life?
 Were you living the kind of life you wanted to live: how so/ if not, why not?

Theme: SELF

2. Think of yourself before you came to Pine River. How would you have described yourself?
 How would your parents have described you?
 How would your siblings have described you?
 How would your friends have described you?
 Now think of who you are at this moment, how would you describe yourself?
 What has changed? Have your experiences at Pine River contributed to these changes? If so, in what ways?
3. What challenges led you to participate in this program?
 Since you've been at Pine River, have you noticed any changes in the way you feel?
 Have you noticed changes in relationships with others here or at home?
 What part(s) of the program was (were) most helpful in making these changes?

Theme: Relationships

4. Think of a time you felt you could be yourself around someone else. Who was this person? Do you feel like you can be yourself around your family? Friends from home? Can you be yourself around the staff and other youth here at Pine River?

5. Think back to the circle of trust activity you did in the OLE. What did your circle of trust look like then?
What does your circle of trust look like now?
6. Has your relationship with your parents changed since coming to Pine River? If so, how has it changed?
What aspects of the program helped you and your parents make these changes?
7. Think back to the OLE when you wrote your letter of accountability to your parents. Describe the experience of writing the letter in as much detail as you can remember. How do you think this letter has impacted your relationship with your parents?
8. Describe your relationships with your friends before you came to Pine River. Have these friendships changed at all in the time you've been at Pine River?
9. What were your romantic relationships (with a boy/girlfriend) like before you came to Pine River? Have you had any romantic relationships here at Pine River that you feel comfortable discussing? Have you noticed any differences in your romantic relationships because of your involvement in Pine River?
10. Please describe your relationships with the staff at Pine River. Have there been any staff members in particular that you've connected with? What was it about this/these staff member(s) that you liked?
Did you learn anything through your relationship with this staff member?
11. Please describe your relationships with your team members.
What was the most difficult part of living collectively?
What was the most rewarding part?
What have you learned from the other students here?
12. Please describe what it's like to participate in the weekly process groups.
What has been the hardest part about these groups?
What has been the most rewarding part?
What have you learned about yourself and relationships with others from these groups?
13. Do you feel this experience at Pine River is a turning point for you?
What has been the most significant change you've made here?
14. How would you summarize your experience in this program overall?
What changes would you make to the program to help it improve for other students?
What do you think are the most important things for other students and parents to know about Pine River as they're deciding if the program is right for them?
15. What do you think the future holds for you? What are your plans after you finish at Pine River?

Appendix G: Frequencies and Number of Youth Endorsing Each Category

Table 1.
Summary of Domain 1: Before Pine River

Subcategory	Frequency	# of youth
Main Category 1: Experiences in relationships	86	10
Unhealthy relationships	28	8
Distant relationships	19	8
Loneliness	11	5
Trauma and Abuse	7	4
<i>Peer Relationships</i>		
Wanted acceptance	7	5
Bullying	6	3
Romantic relationships	4	3
Few friends	4	4
Positive relationships	4	3
Lack of boundaries	3	2
<i>Family Relationships</i>		
Took things for granted	6	4
Didn't trust family	4	4
Defiance	3	3
Main Category 2: Mental health problems	69	10
Sad and depressed	30	7
Low self-confidence/ self-esteem	14	7
Trouble regulating emotion	11	6
Self-harm	10	5
Anxiety	7	4
Carrying shame and guilt	7	3
Supressed emotions	7	3
Connection to physical health	5	4
Main Category 3: Substance abuse	32	6
Consequences of substance abuse	13	5
Why I used	13	4
Used drugs to supress emotions	5	3
Others not aware of reasons	3	2
Main Category 4: Apathetic thinking	24	8
No motivation	9	3
Denial	8	4
Lack of future	6	3
Lack of meaning	2	2
Main Category 5: Problematic behaviours	21	10
Skipping school/failing	9	6
Destructive behaviour	8	5
Stealing	5	4
Played video games all the time	4	2
Main Category 6: Developmental challenges	11	6
Autonomy struggle	6	5
Narcissistic	5	2

Table 2.
Summary of Domain 2: Changes Made in the Program

Subcategory	Frequency	# of youth
Main Category 1: Healthier relationships	48	10
Learned how to have healthy relationships	18	7
Expectations for future relationships	8	6
Redefining relationships with old friends	6	4
Built relationships with different types of people	6	4
Setting and respecting boundaries	5	5
Learned how to develop trust	5	3
Closer relationships	2	2
Not feeling alone anymore	2	2
Main Category 2: Better family functioning	28	10
Closer relationships	13	7
More trust	7	4
Better communication	5	2
Greater understanding	3	3
Respect	2	2
More supportive	2	2
More structure	2	2
Main Category 3: Stronger sense of self	32	9
Self-confidence	14	8
Maturity	13	6
Valuing self	6	5
Finding myself	7	4
Pride	4	3
Main Category 4: Emotional balance (enjoying positive emotions, coping with negative emotions)	30	8
Excited for future	10	6
Awareness of triggers	9	5
Learned how to cope with emotions	8	5
Happy and enjoying life	6	3
Main Category 5: Insightful, future-oriented thinking	14	7
Planning for future	7	5
Insight	4	3
Better decision making	4	3
Motivation	2	2
Main Category 6: Healthier behaviours	5	4
Being sober	3	3
Healthy behaviours	2	2

Table 3.
Summary of Domain 3: Development of Self in Relationships

Main Category Development of Self in Relationships	81	9
Subcategory	Frequency	# of youth
Being authentic and real	21	7
Development of self -general	20	7
Being vulnerable	16	4
Acceptance of self and others	12	4
Developing empathy	10	4
Honesty	8	5
Taking accountability	4	3
Gratitude	4	3
Humour	3	3

Table 4.
Summary of Domain 4: Mechanisms of Change (How)

Subcategory	Frequency	# of youth
Main Category 1: Development through critical rel.	65	10
Relationships with staff	31	10
Relationships with students	26	10
Relationships with therapists	15	8
Main Category 2: Elements that facilitate the development of self in relationships	43	10
Process group	20	10
Practising skills	13	8
Giving and accepting feedback	8	5
Check-ins	6	5
Dialectical Behaviour Therapy (DBT)	3	3
Main Category 3: Elements that facilitate changes in the family	29	9
Family groups/ structured family time	10	7
Letter of accountability	10	6
Fresh start/blank slate	9	4
Being away from home	5	4
Main Category 4: Program structure	19	8
Stage model	11	7
Amount of time	11	5
Main Category 5: Wilderness therapy	18	6
OLE Component	10	4
Nature	9	4
Eating and sleeping schedules	2	2
Main Category 6: Positive experiences in rel.	13	8
Community	6	4
Opening up to others	5	4
Connecting with others	2	2
Feeling accepted	2	2