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Getting the Bug: Exploring Running Group Therapy for Youth with Affective Disorders

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Getting the bug:
Exploring running group therapy for youth with affective disorders

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Thesis Abstract

Mental health problems in adolescents place them on a trajectory for ongoing difficulties into adulthood. Treating youth with affective disorders using conventional interventions such as medication and talk therapy can be problematic. Important questions have been raised about the efficacy and safety of medications and some youths' willingness to engage in counseling. There is, therefore, a need for constant attention to innovative and youth focused treatment options.

Since 2006, Credit Valley Hospital in Mississauga, Ontario, Canada has offered youth diagnosed primarily with depression and anxiety an opportunity to address their mental illness with the alternative treatment of running. The purpose of this qualitative study was to develop a comprehensive knowledge of how youth with affective disorders experience a running group therapy program. The data is comprised of three focus groups and an individual interview. The data was analyzed thematically.
The running group therapy program enables the youth to build running skills, experience the success of completing a race, while at the same time providing them with the opportunity to develop social skills. Overall, youth reported positive experiences and linked this therapy with elevated mood. Many youth reported a plan to continue to use running outside of the group to manage their moods.

This study reports on the implications of running therapy for youth mental health treatment and the field of social work.

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1.0 Introduction

For many years, we have been going for walks to "cool off" or "hitting the gym" after a long, stressful day. We know that physical exercise can make us feel better, both physically and emotionally; the scientific evidence which supports these assertions is rapidly growing. In the treatment of mental health issues such as depression and anxiety, physical exercise is emerging as an important primary intervention. Treating adolescents with affective disorders using conventional interventions such as medication and talk therapy can be problematic. Important questions have been raised about the efficacy and safety of medications and some youths' willingness to engage in counseling. Left untreated, mental health problems in adolescents place them on a trajectory for ongoing difficulties into adulthood. Thus, there is a need for constant attention to innovative and youth focused treatment options. Exercise therapy as an evidence based intervention is a promising new direction in the treatment of youth with depression and anxiety and important to the field of social work.

Some time ago I seemed to constantly be in a negative mood; things that once made me happy no longer did so. I mentioned these feelings to my General Practitioner (GP) who, after a few assessment questions, prescribed antidepressant medication. Without describing its purpose or the possible side effects, he declared that the medication would make me feel better. Instead, antidepressants made me feel sick and slowed my thinking. Because of my educational background, I was aware that mood is modulated by neurotransmitters that can be influenced in multiple ways. I conducted an online search for ways to elevate mood and found an article at the MSN Heath and

Wellness site which suggested running as a positive and natural remedy. (http://health.msn.com/fitness/articlepage.aspx?cp-documentid=100166687). Frustration with the change in my affect, concern about the side effects and efficacy of psychotropic medication, and an overall appreciation for the value of physical fitness underpinned my decision to train for a half marathon. Although there were times when motivation was an almost insurmountable challenge, the harder I trained the more I noticed positive changes in my mood. It is possible that taking medication over a period of time would have helped to improve my mood. However, running was an appreciated alternative, in large part because it matched my lifestyle and personal values.

This research seeks to illustrate how youth who are diagnosed with an affective disorder experience a running group therapy program. For the purpose of this research, affective disorders include the spectrum of depressive and manic disorders as well as anxiety and panic disorders (Katona & Asiska, 2009). The perspectives of the youth, their parents and running coaches as well as the director of a running therapy group were consulted for this qualitative study. This research sought to answer the question: How do the youth experience the running group therapy program? The primary purpose of this research was to expand the research base exploring possible treatments for youth who are experiencing affective disorders.

It has been suggested that one in ten children will experience an episode of major depression by their 14th birthday and by the age of 17 as many as 20% of youth will have had some form of anxiety or mood disorder (Keyes, 2006). One of the most alarming manifestations of depression is suicidal ideation, which can lead to suicide

attempts and, in some cases, a completed suicide (American Psychiatric Association, 2000). A report prepared by Statistics Canada shows that suicide is the second leading cause of death among youth aged 15-24 (Statistics Canada, 2009; Public Health Agency of Canada, 1999). In 2008, suicides represented approximately 20% of all deaths of people between the ages 15 and 24 (Statistics Canada, 2009). The effective treatment of youth anxiety and depression has the potential to delay or reverse the progression of their affective disorders, thereby decreasing the risk of teen suicide.

When we experience mental health problems, we adapt by developing coping strategies. Sometimes these coping strategies are positive; we see a counselor, take medication, and adjust our daily routines. Sometimes coping strategies are negative; we misuse substances, isolate ourselves from society, and abandon healthy daily living routines. Youth have unique vulnerabilities that place them at risk for developing negative coping strategies. They are less independent in their decision-making than adults, which increases their susceptibility to the influence of others. They are more likely to use negative coping strategies when influenced by peers who also use these strategies and less able to control impulses than adults, which increases their willingness to take risks(Reppucci, 1999; Doobs & Webster; 2003). They think differently about these risks and tend to focus on the short-term rather than long-term consequences of their actions.

There are developmental explanations for the inability of youth to focus on long-term consequences. The prefrontal cortex, an area of the brain that controls higher-level thinking such as reasoning, continues to develop until people are in their twenties (Chamberlain, 2008). Higher-level thinking not only enables youth to focus clearly on

long-term consequences of decisions and actions but also helps to mitigate the symptoms of depression and anxiety. Because of the delayed development of the prefrontal cortex the severity with which the youth experience the symptoms of an affective disorder is intensified, while their ability to manage or cope with these symptoms is stunted. Further, in adolescence, the grey matter goes through a "pruning process" where the areas of the brain that are used regularly are strengthened and others fall to the wayside (Doidge, 2007). This is often referred to as the "use it or lose it" phenomenon. If youth who experience mental health problems are unable to receive effective treatment, negative thought patterns, associated with these illnesses may be reinforced. However, if youth receive effective treatment healthier thoughts are more likely to be reinforced. When mental health social workers intervene early and provide effective treatments, youth are more likely to change debilitating thought patterns, and more likely to transition successfully into adulthood.

Currently, the preferred treatment for affective disorders in both youth and adults is a combination of medication and counseling (Kennard, Stewart, Hughes, Jarrett & Emslie, 2008). Medication may regulate the neuro-chemical imbalances and alleviate the acute symptoms, while counseling may increase understanding, facilitate the processing of events and enhance coping strategies to prevent relapse. For youth, however, there are a number of limitations associated with the use of psychotropic medications and with counseling therapies.

Clinical trials show that the Selective Serotonin Reuptake Inhibitor (SSRI) Fluoxetine is effective for treating youth with affective disorders. Clinical trials also suggest that when treating youth with Fluoxentine there is a significantly increased risk

of suicidal ideation (Hetrick, Parker, Hickie, Purcell, &Yung, 2008). This finding, in relation to the concern about high rates of suicide within this population, calls into question the safety of this medication. At best, psychotropic medications must be prescribed cautiously and administered only in circumstances where vigilant monitoring and careful follow-up is possible.

Counseling, it might be argued, is a safer remedy for treating depression and anxiety in youth; however, there may be considerable stigma associated with receiving counseling. Youth are concerned about how they are perceived within their peer group and highly susceptible to peer influence (Reppucci, 1999). Despite the stigma, some youth are forced into counseling by parents, court and school orders; there is an increased likelihood that these youth will be resistant to the therapeutic process. Further, only 9.2 % of youth between the ages of 15-24 who have mental health issues engage in ongoing mental health services (Statistics Canada, 2004). The number of youth reported to have a mental illness far outweighs the number of youth who are receiving treatment, which suggests that there are barriers that inhibit young people in accessing mental health services.

There is a dire need for effective, safe and age-specific treatments for youth who have been diagnosed with an affective disorder. While research is starting to highlight the difficulties of conventional treatments, alternative forms of treatment are gaining attention from researchers and practicing social workers.

One of these alternative forms of treatment is exercise therapy. To date the evaluative research of this treatment has been primarily limited to adults. The use of exercise is becoming increasingly popular in the treatment of youth diagnosed with

affective disorders. It is reasonable to hypothesize that the positive effects of exercise on adult mental health will also be found among the youth population.

Credit Valley Hospital located in Mississauga, Ontario, Canada offers a running therapy program for youth aged ten to 18 who have been diagnosed with one or more affective disorders. The program at Credit Valley Hospital has been offered four times since its pilot in 2006. Referrals to this program are increasing; anecdotally there is considerable evidence to suggest that outcomes for youth have been positive. The youth involved in running therapy meet on a weekly basis for a period of eight weeks in order to train for a local five or ten kilometer race. In addition to time spent running, youth listen to guest speakers who share their personal experiences with affective disorders and reinforce the importance of healthy living. Youth are encouraged to set a realistic goal time for their race. They run together as a team, complete with a uniform. A social worker, a mental health nurse, and local volunteer coaches run alongside the youth, offering support, encouragement and supervision.

The idea for a running therapy group grew out of the personal experience of the lead social worker. For eight years, prior to the development of this running group program, the coordinator experienced significant depression. This was also the time in his life when he joined a local running group and started training. After he completed his first marathon his depressive symptoms subsided. In his experience as a child and adolescent clinical social worker, Dan McGann (the program coordinator) treated many clients with depression and anxiety. Drawing on his knowledge of the scientific support for exercise alleviating symptoms of depression and anxiety in adults, he planned a running therapy group for the youth who were seen at his clinic in the hospital. After

the head psychiatrist approved the therapy group in his department, Dan rallied community support and in less than a year started the first running group therapy program for youth at Credit Valley Hospital. Drawing on his experience and research from various disciplines, Dan McGann was able to provide an alternative treatment for youth with affective disorders.

The profession of social work draws on many fields and perspectives, making strong commitments to serve clients using respectful and empowering interventions that lead to sustaining positive changes in everyday living. Social workers make a conscious effort to match client treatments with their personal needs, values, and lifestyles. Having a variety of treatment options to choose from increases the probability that an effective intervention or combination of interventions will be available. In light of the challenges associated with psychopharmacology and psychotherapy, there is a significant opportunity for social workers to show leadership in the area of alternative mental health treatment strategies. My positive experience with running as a treatment for mild depression has heightened my interest in this topic area. It is my hope that this research will contribute to an understanding of the youths' experiences of running as a treatment for affective disorders.

2.0Review of Literature

Studies indicate that people who exercise regularly are both physically and mentally healthier and report fewer symptoms of depression and anxiety than people who do not exercise regularly (Blumenthal et al., 2007; Craft, 2007; Dunn et al. 2002; Goodwin, 2003; Gold, 2006; Hassmén et al., 2000; Kirkclady, Shepard & Siefen, 2002; Lengrand &Heuze, 2007; Schmitz et al., 2004; Seime & Vickers, 2006; Stella, Vilar, Lacroix, Fisberg, Santanos, Mello & Tufik, 2005; Stathopoulou, Powers, Berry, Smits, &Otto, 2006). This review begins with research studies that explore the relationship between physical exercise and affective disorders, namely depression and anxiety. These studies are categorized into population and experimental studies. Population-based studies generally seek to discover interventions that raise the baseline heath statuses of communities rather than individuals (Taylor & Johnson, 2007). They evaluate the difference between healthy and unhealthy individuals to identify risk factors, or commonalities and differences among those individuals with similar health concerns. The limitation of these studies is that they are not person specific and give no information on what may be causing the relationship. So while population-based studies are useful in identifying general risk factors and relationships, they are less useful in explaining these relationships.

Experimental studies typically involve a control and experimental group, and happen in a controlled setting to test a hypothesis. One of the strengths of experimental studies is their capacity to claim a causal connection. The limitation of experimental studies is that they typically do not replicate real life situations and often the results cannot be generalized to individuals who were not part of experiment. Thus, it is

important to review the contributions of both types of studies. This review also explores various biological, psychological and social mechanisms that contribute to explanations of the relationship between physical exercise and positive mental health. Finally, this review highlights the positive side effects of exercise therapy and the barriers to implementing exercise programs as a form of therapy for those suffering from affective disorders.

2.1Population Studies

Often cross sectional analyses of large population samples are used to explore the correlations between mental health and physical exercise. For example, Hassmén et al. (2000) analyzed data from a Finnish National study of cardiovascular disease involving questions from the Beck Depression Inventory to find that individuals who exercised two to three times a week had better mental health than those individuals who exercised less frequently or not at all. In addition, Goodwin (2003) completed a multiple regression analysis on data from a national co-morbidity study in the United States to find that regular exercise was associated with the decreased likelihood of generalized anxiety disorder (GAD), major depressive disorder (MDD), as well as other specific phobias marked by excessive anxiety. These studies tend to show a relationship between exercise and symptomatology of affective disorders however, they often rely on participant self-report about the frequency of exercise and severity of depressive symptoms (Goodwin, 2003; Hassmén et al., 2000; Kirkclady et al., 2002; Schmitz et al., 2004). Although these population studies show a negative association between exercise and depression, they cannot claim a causal relationship. Alternative explanations of the correlation between exercise and depression might be that the people in the studies were

not depressed; or they may not have depressive symptoms because they exercise. In the case of population studies it is impossible to claim causality (Kirkclay, 2002; Stathopoulou et al., 2006).

2.2 Experimental Studies

Other studies use experimental designs that yield detailed results about the type and duration of exercise that works best for reducing depressive symptoms (Blumenthal et al., 2007; Dunn et al., 2002; Lengrand & Heuze, 2007; Stathopoulou et al., 2006). These experiments vary greatly with regards to their validity, reliability and generalizability. For example, Stella et al. (2005) used a pre-post test design to research a very specific cohort of obese young girls between the ages of 14-19. They found that moderate to high exertion aerobic exercise was the best type of exercise program to reduce depressive symptoms. Stella et al. (2005) do not comment on how they collected their sample of 40 female adolescents, nor do they discuss criteria that would exclude an individual from the study, other than having a Body Mass Index (BMI) of 95% or lower.

Other studies, such as the Depression Outcomes Study of Exercise (DOSE) study, involved randomized clinical trials with concrete exclusion guidelines (Dunn et al., 2002). The DOSE study carefully screened 1664 people to generate a sample of 80 people (Dunn et al., 2002). This study explored the effect of five different types and durations of exercise on depression using pre and post testing where the Hamilton Rating Scale for Depression was administered by trained clinicians. It was found that the public health dose (17.5 kcal/kg/week, or moderate exertion 5 times a week) was the most effective dose in reducing depressive symptoms (Dunn, Trivedi, Kampert,

Clark & Chambliss, 2005). Although the research of Stella et al. (2005) does not discuss the sample criteria in the same detail as Dunn et al. (2002), similar results were found in both studies.

If there is a negative association between depression and exercise, as these studies suggest, then more clinicians may want to implement exercise as a legitimate form of therapy for depression (Dunn et al. 2002; Blumenthal et al., 2007). The current research on exercise therapy is often criticized for lacking scientific rigor; often well-established depression or anxiety screening tools are not used and there are challenges associated with generating a random sample (Dunn et al., 2002). It should be noted that there is one study where the findings suggested that exercise interventions alone are not sufficient to reduce depressive or anxious symptoms. These researchers report that the client's depressive symptoms reduced when exercise was used in conjunction with Cognitive Behavioural Therapy (CBT) (Van de Vliet et al., 2004).

2.3 Biological, Psychological and Social Mechanisms

While there is much information that supports a negative association between physical exercise and mental health, there is little information to explain why this relationship exists or how it works. In this section, I will address biological, psychological, and social mechanisms that inform explanations of the relationship between physical exercise and affective disorders.

2.3.1 Biological

Perceived, or what is called anxiogenic stress, can precipitate depression. Anisman and Zacharko (1982) suggest that there is a continuum of perceived stress from low self-esteem to anxiety to depression. When someone is experiencing stress the

body reacts by stimulating the hypersecretion of Beta Endorphins (BE) from the anterior pituitary gland into the blood stream (Lobstein, Ramussen, Dumphy & Dumphy, 1989). Serotonin and norepinephrine are types of BE commonly associated with depression and anxiety (Markowitz & Cuellar, 2007). If the amount of BE released into the blood stream is greater or lesser than the optimal threshold, the probability that an individual will experience an affective disorder increases. As the amount of BE moves further away from the optimal threshold, the affective disorder intensifies. Exercise regulates BE in a similar way to antidepressants; it equalizes the amount of serotonin and norepinephrine that is released into the brain (Schmitz et al., 2004).

Research on the effects of exercise on the brain is continuously evolving. A study by Kendall et al. (1992) brings to light the important distinction that not all anxious youth become depressed and not all depressed youth are anxious first, which is contradictory to the continuum of stress to depression presented by Ainsman and Zacharko (1982). In the beginning it was thought that the exercise was effective in controlling affective disorders simply because it regulated the neurochemistry, but more recent research is showing that the effect of exercise on affective disorders is much more complicated and it affects many different neurological systems (Ratey and Hagerman, 2008).

Neuropsychological studies show that affective disorders have been associated with hyper activity in selected prefrontal areas; EEG studies show that exercise reduces activity in these selected areas (Stathopoulou et al., 2006). In addition, a study showed that "during moderate exercise, prefrontal-dependent cognitive functioning becomes impaired while prefrontal non-dependent functioning remains intact" (Stathopoulou et

al., 2006 p. 187). This means that when one exercises, the activity in the prefrontal lobe (the area of the brain responsible for a significant portion of our mood and personality) that involves thought processes dependent on mood become impaired whereas non-dependent or maintenance processing continues. Thus, an additional explanation for the positive effects that exercise has on mood disorders is a modification of prefrontal cognitive processing. As neurobiological research continues to evolve better explanations will be available.

2.3.2 Psychological

Self-efficacy is a primary psychological mechanism identified in the relationship between physical exercise and its effect on depression and anxiety. Self-efficacy refers to the belief that one possesses the necessary skills and the confidence to complete a task with the desired outcome (Bandura, Capara, Barbaranelli, Gerbino & Pastorelli, 2003). Individuals with low levels of self-efficacy have difficulty stopping negative thoughts. Negative thoughts contribute to increased levels of depression and anxiety. The best source of self-efficacy comes from mastery experiences. Mastery experiences enable feelings that one is in control of one's own environment and less subjected to the power of outside forces (De Marco, 2000). If an individual can follow a plan to meet a desired outcome in the face of changing obstacles then that person is said to be efficacious. Conversely, continuously failing to master the desired outcome reduces self-efficacy.

Exercise programs are an avenue for enabling mastery and self-efficacy. Within a typical exercise program, individuals set goals, monitor their behaviors, and receive positive support and encouragement from instructors and others. These experiences

enhance the individual's sense of mastery. Therefore, it can be hypothesized that the positive effect that exercise has on depression and anxiety is related to the opportunity to develop self-efficacy through skill mastery (Craft, 2005). It has been noted that skill mastery and its accompanying self-efficacy not only reduce the likelihood of depressive symptoms but also decrease the probability that depressive or anxious symptoms will reoccur (De Marco, 2000; Schmitz et al., 2004).

Distraction is a psychological mechanism that is often used to explain the relationship between exercise and its effect on affective disorders. Some researchers claim that physical exercise serves as a distraction to negative thoughts (Craft, 2005). Distraction occurs when someone busies himself with an engaging activity in an attempt to focus on something other than the depressed mood or anxious thought. Conversely, rumination occurs when an individual repetitively thinks about generally negative attributions from the past, present or future. These thoughts can contribute to a depressed mood. Craft (2005) found that there was a reduction in ruminative responses as the exercise program progressed, but this reduction was not statistically significant. In addition it was found that runners who focused on thoughts that were not related to running showed less fatigue and a decrease in anxiety and depression (Stathopoulou et al., 2006).

2.3.3 Social

The sociological mechanism often used to explain the positive effects of physical exercise in relation to mental health is cohesion. Cohesion can be defined as a dynamic process evident in the tendency of a group to remain united in the pursuit of instrumental objectives (Legrand & Heuze, 2007). Some researchers suggest that the

added effect of exercise in groups reduces depressive symptoms more than exercising alone (Legrand & Hueze, 2007; De Marco, 2000). In some studies there was a support person that the participants could go to if they were having difficulty or needed motivation (Legrand & Hueze, 2007; De Marco, 2000, Stathopoulou et al., 2006; Stella et al., 2005). In addition, some studies tested the effect of exercising in a group versus exercising alone (Legrand & Hueze, 2007; Stella et al., 2005). It was consistently found that physical exercise in groups added no statistically significant benefit to decreasing depression scores; however it did not hinder the effects either. Though there is no statistical evidence to support the idea that running in a group adds benefit to exercise therapy for affective disorders there has been anecdotal evidence to support this idea. It maybe that qualitative research examining social effects will add important insights.

2.4 Reliability of Exercise Therapy

In 1999, James Blumenthal and colleagues conducted a study of 156 adult patients with major depressive disorder. After 16 weeks of treatment there was no clinical or statistical difference between patients who received the antidepressant Zoloft and patients who received exercise training (Babyak, Blumenthal, Herman, Khatri, Doraiswamy, et al., 2000; Ratey and Hagerman, 2008). Further, many other researchers exploring the relationship between exercise and mental health acknowledge to date that results from trials of these programs have been positive (see for instance Blumenthal, Babyak, Doraiswarny, Watkins, Hoffman & Barbo et al. 2007; Clark &Chambliss, 2002; Craft, 2007; Dunn, Trivedi, Kempert,; Goodwin, 2003; Gold, 2006; Hassmén, Koivula & Uutela, 2000; Lengrand & Heuze, 2007; Schmitz, Kruse & Kugler, 2004; Seime & Vickers, 2006; Stathopoulou, Powers, Berry, Smitts & Otto,

2006; Van de Vliet, Vanden Auweele, Knapen, Rzenwnicki, Onghena & Coppenolle; 2004). Stathopoulou et al. (2006) suggest that exercise should be used with caution and remind clinicians that, as with other therapies, when deciding whether or not to promote exercise therapy it will be necessary to evaluate whether the running therapy will meet the goals and values of the client; it will also be important to sequence the running therapy so that it can target specific goals (such as stress management) (Stathopoulou et al., 2006; Dunn, 2003). These outcomes in conjunction with the fact that exercise has few negative side-effects, makes exercise an increasingly attractive form of therapy for youth.

2.5 The Benefits of Running Therapy for Youth

Overall, the literature suggests thatexercise therapy is a promising treatment for affective disorders. For youth, there are significant issues with the use of medications in the treatment of affective disorders, which bolsters the argument for paying careful attention to the possibilities of running therapy. It has been shown that tri-cyclic anti-depressants do not have a statistically significant effect on depression in youth when compared to the effects of a placebo (Taylor, Hawton, Fortune, and Kapur, 2009). On the other hand, Selective Serotonin Reuptake Inhibitors (SSRI) have been shown to be effective in treating depression and anxiety in both children and youth. In a systematic review of both published and unpublished clinical trials evaluating the efficacy of SSRIs, only Fluoxetine, commonly known as Prozac, was shown to be consistently effective (Hetrick, Merry, McKenzie, Sindahl & Proctor, 2009). The difficulty is that SSRIs, including Fluoxetine, have also been shown to seriously increase the risk of suicidal ideation among youth. A meta-analysis of SSRIs prescribed for youth showed

that this population was 33% more likely to have an increase in suicidal ideation than youth taking a placebo (Hetrick, Parker, Hickie, Purcell, &Yung, 2008). In October 2004, the US Food and Drug Administration (FDA) announced that a black box warning label must be put on SSRI's regarding the risks associated with administering the drug to children and youth (FDA, 2004). The black box warning is an alert to physicians and pharmacists indicating that the drug has serious side effects and should only be used under close supervision. In February 2004, Health Canada issued a rare public warning advising that individuals under the age of 18 to re-consult with their physician before continuing to take their SSRI's because of the increased risk of suicidal ideation (Davidson, et al., 2005). It is also important to note that in Canada SSRI antidepressants are commonly prescribed using a practice called "off label" use. This means that SSRI medication is not specifically approved for treating conditions in adolescents and children; it may however, be prescribed because this medication has not been specifically banned in treating this population. The de-emphasis on treating youth affective disorders with psychotropic medications has generated interest in alternative therapies, one of which is exercise therapy.

2.6 Positive Social Effects of Running Therapy for Youth

Exercise therapy is counter-intuitive for depressed individuals. It encourages the individual to challenge his or her depressive or anxious symptoms and to operate in a constructive way despite their presence (Stathopoulou et al., 2006). In addition, by increasing oxygen consumption, exercise may reduce or prevent general fatigue, which is a common symptom of depression. A feeling of increased energy might encourage the individual to further confront their symptoms. Physical exercise will also decrease body

mass and promote a more favorable physique thus garnering the youth more positive social feedback. Such feedback may improve self-esteem and self-efficacy (Kirkclay, 2004). Exercise has few negative side effects when compared to antidepressant medications and as such may be a more acceptable way to treat youth (Dunn et. al. 2002).

2.7 Cautions when Implementing Exercise Therapy with Youth

Translating exercise therapy into practice requires special attention by the guiding therapist (Seime & Vickers, 2006). The symptoms of being depressed can present large barriers to the success of an exercise program aiming to reduce these symptoms. Often depressed individuals are not motivated, lack energy, give up easily, are apathetic, lack self esteem and have difficulty problem solving. These symptoms can make adopting an exercise program especially difficult. It has been shown that depressed individuals are less physically active than the general population (Martinsen, 1990). Thus depressed individuals will need consistent support to initiate and maintain an exercise regime (Seime &Vickers, 2006). In addition, depressed individuals have difficulty getting back on track after they relapse in their exercise routine. Relapsing may increase self -blame, which could undo the positive effects that the exercise aimed to create in the first place. Therefore, it would be essential to prepare running group participants for the possibility of relapses and to be mindful of the importance of reassurance and encouragement. In essence, exercise therapy is labor intensive for the therapist and should not be undertaken if attention cannot be paid to the these details.

This literature review highlights that exercise has a positive effect on mental health for various reasons. It has been shown that biochemical processes are at work to

equalize mood. Psychological changes happen as individuals begin to develop mastery. As well, there is some suggestion that social benefits occur when the exercise happens in a group context. To date, research has focused largely on the adult population. Given the increasing dangers associated with antidepressant medications and youth, as well as their reluctance to engage in individual counseling, exercise should be explored as an alternative treatment for youth with affective disorders.

3.0 Methodology

My personal interest in this research comes from a desire to contribute to an in-depth understanding of alternative treatment practices for youth. I use physical exercise to overcome negative moods and have felt a resistance to traditional (medication and talk therapy) forms of treatment. This led me to want to know more about the effectiveness of running on mental health problems. I am motivated to understand how a running group therapy program can influence the experience of mental health in youth.This chapter explains the methodology used for this study. A qualitative research paradigm underpins this study. This section begins by explicating the rationale for choosing this paradigm and the use of interviews and focus groups to generate data. I explain specifically how the data was collected and describe the sample.

3.1 Research Question

Throughout this research, I sought to answer the question: how do youth experience the running group therapy program? The literature involving the relationship between exercise and mental health with youth is limited, therefore I aim to create a comprehensive understanding of how these youth experience the running group therapy program. Initially, I sought to answer this research question using a mixed methods approach combining pre and post-test results from the depression and anxiety inventories administered by a psychologist. However, after discussions with the program coordinator and my thesis advisor, it was determined that to gain access to that information would require access to the health records of these youth. Obtaining these records would involve a lengthy ethics approval process. The time frames associated with this process exceeded the time allotted for completing the Master of Social Work

graduate degree. It was decided that using a qualitative approach would yield data appropriate for developing a comprehensive understanding of youth experience and the original mixed methods design was altered accordingly.

3.2 Rationale for Choosing Qualitative Research Methods

The aim of this research was to understand how youth experience the running group therapy program. Qualitative research draws on the philosophical paradigm of postmodernism and social constructionism. It is grounded in the idea that there is no single truth. Reality is comprised of multiple truths that are dependent on their social contexts (Lietz, Langer & Furman, 2006). Qualitative researchers tend to emphasize the socially constructed nature of reality while taking into account the situational constraints that shape their inquiry (Denzin & Lincon, 2005). Qualitative researchers also tend to explore and understand the meaning that people ascribe to their experiences (Creswell, 2009). Qualitative methods often involve small samples where the goal is to create an understanding of which aspects of a phenomenon are most compelling (Creswell, 2009). To appreciate the meaning that people assign to experiences, researchers often use interviewing strategies that allow participants to be fluid in their responses and to highlight areas that they find to be particularly important (Esterberg, 2002).

Qualitative research seeks to create meaning, thereby making it useful for investigating complex and sensitive topics (McBride & Schostak, 1995). As detailed in the review of the current literature, the relationship between exercise and mental health is complex. This research does not seek to describe the relationship between exercise and mental health in its entirety. Rather it focuses on the development of an in-depth

understanding of youth experience. By creating a comprehensive understanding of how the youth experience the relationship between exercise and mental health, I will be able to add to the understanding of that relationship.

I was unable to locate any qualitative research studies, which specifically focused on youth experience of exercise therapy. In fact, there are few qualitative research studies that seek to understand the relationship between exercise and mental health. While quantitative research is useful for generalizing to broader populations and for examining relationships among variables using statistical procedures, qualitative research captures the story of experiences (Creswell, 2009). The strength in qualitative research is its capacity for rich description. For the purposes of this research, I chose to conduct an individual interview with the program coordinator. An individual interview was appropriate because the program coordinator was the creator of the program, and as such provided important contextualizing information including the rationale for the development of the program. This interview generated data that enabled an overarching understanding of the running group therapy program.

Focus groups were conducted with youth, parents and coaches. The youth were recruited in order to share their experience of participating in the running group therapy program and their perceptions of its impact on their affective disorder. The parents were invited to participate because of their capacity to provide first hand observations of the daily functioning of these youth and their responses to the running therapy. Additionally, parents were recruited for the purposes of providing a developmental history including youth functioning prior to the appearance of problematic symptoms, behavior at the height of the difficulties and current levels of functioning. The coaches

were recruited in order to provide a ground level understanding of what happens with the youth in the running group and perceived changes in the youth throughout the program. The emphasis in each of these focus groups was the perception of youth experience of running group therapy.

Focus groups were used because they allow participants to build on one another's ideas and opinions, creating focused but multi-perspectival data (Esterberg, 2002). In addition, focus groups allowed for the collection of a large amount of information in a short period of time. Because of the volume and richness of the data available from focus groups, this strategy was selected for this study.

3.3 Data Collection

Prior to collecting the data, this research project was approved by two ethical review boards, one at Wilfrid Laurier University (WLU) and one at Credit Valley Hospital. In the ethics review process, it was emphasized that confidentiality would be of the utmost importance for youth, parents and coaches. It was also emphasized that anonymity could not be ensured for the program coordinator or the hospital. You will note that in addition to ethics approval processes, a discussion was held with the program coordinator in which he agreed to and encouraged the use of his name in the study findings. Further, the youth were given the option of a one on one interview with this researcher if they did not feel comfortable in a focus group setting. No youth requested an individual interview. In the end, the hospital ethics review process was expedited becausethe WLU ethics board had already approved the research project.

The coordinator of the program at Credit Valley Hospital acted as a liaison to recruit participants for the focus groups. He distributed an electronic poster to youth,

parents and coaches inviting their participation in the study. The youth focus group had eight participants, the parent focus group had 11 participants and the coach focus group had three participants. Including the individual interview with the program coordinator this sample is comprised of the views of 23 people who have had direct involvement in the running group

therapy program.

Table 1.0
Number of participants and data collection method.

Focus Group/ Interview	Number of Participants
Interview with Program Coordinator	1
Youth	8
Parents	11
Coaches	3
Total	23

Each of these focus groups lasted between 50-70 minutes. I developed a semi-structured interview guide with 8-10 questions (see appendix A). Most participants spoke willingly and enthusiastically about their experience, requiring few prompts. Only minimal interruption to the flow of discussion, generally to redirect participants to the topic at hand was necessary. Following each of the focus groups, I made process notes that captured my initial impressions. All focus groups were audio-recorded.

3.4 Description of the Sample

The sample of this research was designed to allow for the many different voices to be heard in the research regarding the youths' experience of the running group therapy program. The perspectives of the youth, program coordinator, coaches, and

parents come together in this research to present a comprehensive understanding of the youth's experience in the running group therapy program.

3.4.1 The Program Coordinator

The program coordinator was a registered social worker that had been practicing in the area of adolescent and children's mental health for many years. He had struggled with depressionand used running to alleviate those symptoms. In the process of organizing my thesis and developing the proposal, the coordinator and I met informally to discuss the program and how my research might be feasible. After finishing the ethical review process, I conducted a formal research interview with him. We discussed how the program was developed, how a youth might get connected to the program, what the program involves and his perception of the strengths and weaknesses of the program.

3.4.2 The Youth

The ages of the youth ranged between ten and 18. The ten-year-old youth was the only participant who was not attending high school. There were three females and five males. Each youth had been diagnosed with clinical depression and/ or some form of anxiety, most commonly social anxiety. Each of these youth had experienced difficulty attending school; some had been home schooled for a period of time. At the time of this focus group, all were attending school on a regular basis and living at home with at least one parent. One youth reported that prior to her experience in the running group therapy program she was self-harming and had recurring thoughts of suicide. Further, one of the parents indicated that her son had been self-harming and expressed suicidal thoughts. Seven of the eight participants were involved in the current running

therapy group, in the role of either mentor or participant. One female youth who was no longer involved in the running therapy program participated in the focus group. This youth had been a participant in the first running therapy group. The aim of this focus group was to develop an in-depth understanding of how the youth experienced the running group therapy program.

3.4.3 The Parents

The parent focus group was held on the same Saturday morning as the youth focus group. The parents spoke while their children were running. Five mothers attended the focus group without a significant other. There were three sets of parents. One of these parents had a daughter who had completed the running group program in previous years. There was one father who was alone for the majority of the focus group; his spouse joined him toward the end of the discussion. The children of eight out of the eleven parents participated in the youth focus group later that morning.

The discussion in this focus group was centered on creating an understanding of how the youth experience the running group therapy program. I did not specifically ask about the parents' personal experience with a child diagnosed with an affective disorder, however this inevitably crept in. Rather, I was deliberate in focusing the discussion on their perceptions of changes in their youth's behaviour since becoming involved in the running group therapy program.

3.4.4 The Coaches

The three coaches who participated in the focus group were female. All reported having full time jobs in other fields but choose to volunteer their time for this program. All were avid runners; two were first time coaches to the youth. They became involved

with this running program for the purposes of motivating and inspiring the youth to develop a love for running. All reported using running as a strategy to manage stress in their own lives.

The emphasis of this focus group was on sharing stories of how the youth experience the running group therapy program. Throughout the focus group the coaches would talk about their experience of the relationship between running and mental health, however it was not my purpose for conducting that focus group and as such I redirected them to speaking about the youths' experiences.

3.5 Method of Analysis

After collecting the data, I became immersed in its content by doing the transcription. Often participants talked simultaneously, so I listened to the recording multiple times to distinguish tracks of speech. When there were pauses in speech, I indicated these by using ellipses (...). When a speaker was interrupted, I denoted the interruption by using a hyphen (-). I examined the data for errors by comparing the typed transcriptions to the voice audio.

Thematic analysis was selected for its capacity to provide a balance between inductive and deductive coding. Inductive coding is grounded in the data and allows an understanding to emerge out of the text (Bernard, 2000). Deductive coding starts with a hypothesis and uses the data to test that hypothesis. For this analysis, the literature review, the interview with the program coordinator and the process notes informed the deductive process. Inductive coding allowed other themes to emerge directly from the data (Fereday & Muir-Cochrane, 2006). My immersion in the data through the processes of interviewing and transcribing informed the inductive coding process.

Together, the deductive and inductive coding processes enabled the development of a comprehensive analytical schema. For this study, the strength of this thematic analysis was that it allowed for an apriori conceptualization of what might be shown in the data while still allowing fresh or unexpected themes to emerge directly from the data. Using the comment tool in Microsoft Word, I was able to code all of the transcripts. To further organize the data, I aligned each of the relevant sections of transcript under its respective code in a separate document.

The aim of the current research was to explore how the youth experience the running group therapy program. Using qualitative methods enabled me to understand what the youth, their parents, the coaches, and the program coordinator found to be the most important experiences of these youth. Further because the youth's experience of running therapy is an unexplored research area, it was important to remain interpretively close to the data; to use a relatively low level of abstraction in my interpretations. Lastly, it was necessary to acknowledge my personal experience of using exercise to ease depression in my own life. Inevitably this personal experience influenced interpretations. There was a place for this discussion using a qualitative methodology.

4.0 Results: Youth Experience of Running Group Therapy

The focus groups with the youth, their parents and the coaches revealed a number of important insights about how youth experience the running group therapy program. Within the running group therapy program, youth described their exposure to new and challenging experiences. The parents elaborated on some of these experiences. From their vantage point, they described running therapy within a broad context, relating their perspectives to the historical lives of their sons and daughters. The coaches' vantage point was limited to the time they spent running with the youth and focused most directly on their growth in relation to running. Together these focus groups enabled a multi-dimensional understanding of the youth's experience in the running group therapy program.

The experiences of these youth can be categorized into three intersecting themes, the first being experiences of social ease. Many of the youth spoke about the running group therapy program as a safe forum for experimenting with social skills. Within this group they had positive social experiences, which for most of the participants was not the norm within their school peer group. Participants in this research discussed the positive impact of exposure to other adolescents who had overcome an affective disorder and described feeling comforted by their associations with peers who had been diagnosed with a similar mental illness. They also described positive relationships that were formed with running coaches. This section concludes with some ideas about the differences between participation in this running group therapy program and a typical sports team.

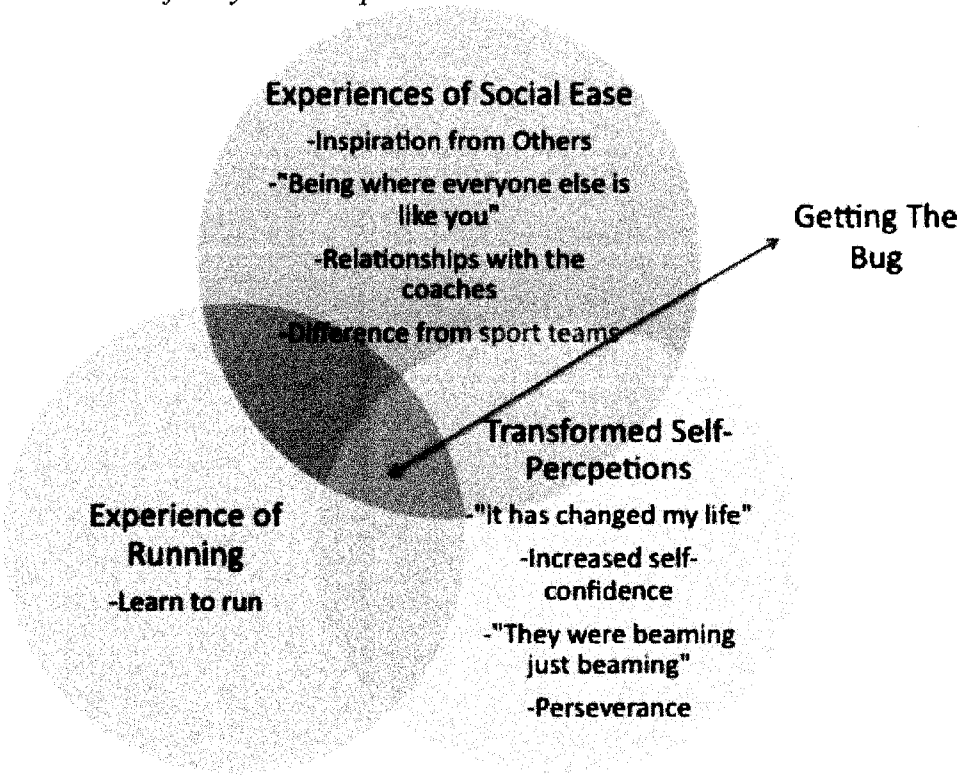
The second theme about youth experience that was prevalent in this data was the transformation in youth self-perceptions. The participants described a pronounced shift in their thinking moving away from a preoccupation with the negative aspects of their lives and toward thinking that is optimistic about future possibilities. Participants described an overall increase in their self-confidence. Finally, participants discussed the importance of youth taking pride in their accomplishments and learning to persevere in the face of adversity.

The final theme regarding the youths' experience was the impact of developing running skills. Youth learned to run and in this process began to appreciate the generalizability of these skills to others areas of their lives, particularly with regard to the management of anxiety and depression. Figure 1.0illustrates the three intersecting and overarching themes in this analysis.

The point on the diagram where the three themes intersect represents the experience of the youth "getting the bug." When the youth "get the bug" all aspects of the running group therapy program come together and the youth develop the confidence, knowledge and ability to be able to recognize that running helps to regulate their mood. Usually, at this point they begin to run outside of the structured group. The aim of the running group therapy program is to inspire the youth to "get the bug," which will help them regulate their moods throughout their lives. The discussion of the results concludes by highlighting the experiences of the youth "getting the bug."

For the purposes of illustrating the various experiences of the youth in the running group therapy program, I rely on verbatim quotations to highlight key points.

Figure 1.0
The intersection of the youths' experiences



4.1 Experience of Social Ease

In order to establish a context for the significance of the social ease that youth experience within the running group therapy program, it is important to appreciate the social lives of these youth in their broader communities. Many of the youth who participated in the running group therapy program felt alienated from their peers, especially within the school setting. The experience of mental health problems separated them from their peers. One youth said: "I can't talk to people my own age because they don't really understand what I'm saying." Another said: "They haven't gone through, and [they have not] had the thoughts that I have... that hurt bad. I just

know that they haven't..." One youth talked about how, even among his lifelong friends, he felt as though his experience of a mental health problem was not understood:

> Yeah I find that too. I find it hard talking to, like, even like my friends who I've known for almost my whole life I find it hard talking to them about it because, like, I know that they don't know what it's like- they can sit there and be like – oh I understand- but in my head I just know that they don't, like, I just know that. (Youth)

At a time in life when relationships with peers are of the utmost importance, these youth experienced painful separations from friends and considerable difficulties in relation to this isolation.

Social situations can be profoundly difficult and anxiety provoking. One youth likened the challenge of talking to peers to running ten kilometers.

> ...for me and for a lot of other people it is really hard to talk to someone...I actually feel like that its harder than running a 10 K because when you're running a ten K you know you practiced [and] you feel good after. (Youth)

Many youth expressed difficulty with social interaction. This sentiment was verified within the parent focus group. One mother described her son's apprehensions about interacting with others at school:

> ...in grade nine he started school and he was afraid of everyone. He was intimidated by everybody. He was thinking that guy said this to me and I don't know if he's going to hurt me or whatever. It got to the point where I didn't know if he was going to be able to go around in school. (Parent)

Another mother talked about the hopelessness her son experienced with regard to his ability to make friends:

> One time [my son] had a kid he met in the neighborhood; a new little kid and he came to call on [son's name]. And he said, 'I'm not going outside'. I'm not going outside because he's just gotten disappointed again and he's going to find out that no one likes me and then he's not going to want to hang out with me. I'm going to be disappointed. (Parent)

All the youth-participants experienced significant difficulties interacting with their peers outside of the running group therapy program. These difficulties have restricted their social participation, caused extreme emotional distress and resulted in isolation.

This difficulty underscores the importance of ensuring that the social environment in the running group therapy program is one where youth can readily communicate with one another. The program coordinator said: "The indirect piece seems to be very beneficial that they're able to communicate their issues, their concerns, with their fellow group members when it's involved in an indirect activity and there's lots of support around that." The program coordinator uses the term indirect to refer to activities other than the running and the seminars. The social ease in the running group therapy program was a new experience for these youth.

4.1.1 Inspiration from Others

In the running therapy program, youth were exposed to two people who used running to overcome their experience of having an affective disorder. These people included the program coordinator as well as guest speakers who were invited on occasion to share their stories of overcoming anxiety and depression with the youth group. These stories of success had a significant impact on the youth. The stories inspired hope that change could be possible and inspired the youth to believe in and anticipate their own recovery. This anticipation of their recovery helped the youth to be less apprehensive while in the running group therapy program. In turn, this contributed to their experience of social ease.

The program coordinator had a central role in the program and ample exposure to the youth. He recruited and screened youth referred to the running group therapy

program, described the rationale for the group and what will be involved. He explained how running is considered effective in treating adults with mental health diagnoses. Further, he was a clinical therapist to some of the youth prior to their involvement in the running group therapy program.

The program coordinator described how the inspiration for the program is rooted in his experience of depression and the impact of running as therapy:

> It [the group] started about two and a half years ago. After I finished my first marathon, having gone through a period of depression myself about eight years ago I started running and the benefits that I received in running; and eventually completing a marathon made me think as a child and adolescent therapist that this might be a good intervention to use with the kids and the patients that I work with. (Program Coordinator)

The program coordinator shared his story with youth about how running helped him gain more control over his struggle with depression and how this experience inspired the development of the program. The youth entered the running therapy program with this knowledge. Traditionally, clinicians are trained to share very little about their personal lives with clients; however this therapist chose to share his experience of depression because he strongly believes that this level of self-disclosure benefits the youth. His story reassured them that having a mental illness is not so "abnormal" and that recovery is possible.

Knowing that the program coordinator has had similar struggles throughout his life is both motivating and inspirational for the youth. Despite the numerous types of involvements of the program coordinator, participants in this study were most impacted by his personal story. One youth described the impact of the program coordinator's testimony:

> I think hearing [the program coordinator's] story about how he had his experience before and then started running and how he was running marathons and it made me think how I haven't been doing anything for a really long time and felt horrible and I was thinking I was the happiest when I was active so maybe I'll try it again. (Youth)

The parents expressed how the youth related to the program coordinator: "...he thinks [the program coordinator] is like the most amazing person." Parents generally agreed that the program coordinator's story of his personal struggle with depression enabled the youth to admire him as well as relate to him because of their shared experience. Coaches described how the program coordinator's personal story causes him to be viewed as knowledgeable and genuine:

> [the program coordinator] gives the kids skills, they come in and they see him and he did a presentation and he walks the talk and he talked about his own issues...And how he used running to get through that. (Coach)

In sum, the youth emphasized the impact of the program coordinator's personal story on their level of motivation to enter and complete the program; the parents emphasized the program coordinator's ability to use the story to connect with youth; the coaches' emphasized how the story causes the coordinator and the idea of running as a form of therapy to be viewed as authentic. From these multiple perspectives, it would appear that this strategy has a positive effect on the social ease experienced by youth.

In each of the focus groups there was mention of a memorable guest speaker who had a profound impact on the youth. This speaker was a police officer who had experienced many difficulties in his life. During his adolescent years, this guest speaker witnessed his brother murder their father. Initially, he coped with this tragedy by using substances. Later, with the support and encouragement of a running coach, he got

involved in the cross-country running team where he was able to develop healthier coping strategies. A coach explained the police officer's story and the youths' reactions:

> It's mind-boggling; he watched his brother shoot his father, he came from a very abusive home… It's funny he straightened himself out. He was stealing. He was doing drugs. He had a bad home life, but his story is- whoa-when he speaks you can hear a pin drop and the kids are riveted they're just like oh my god. (Coach)

This police officer was the first guest speaker mentioned by the youth. The magnitude of his struggles and his ability to overcome them inspired the youth. After listening to this officer speak, it seemed as though the youth were empowered to challenge their own mental health concerns:

> It was amazing that all these horrible things happened to him and he started running and the only thing that made him feel good about himself, was going out and doing this. And it made me feel like no matter what, I will have that and I can make that for myself, and I was thinking that I can have that too, and it's true you know and I do have that now so that really changed my perspective. (Youth)

This youth appreciated that the officer was able to take control of his life through running which inspired her to feel as though she would be able to regain control over her life.

The youth viewed these guest speakers as an essential aspect to the program. This was evident when I asked the youth what they would change about the program and one youth replied:

> If anything I would put more speakers because I find hearing other people's stories of how it helped them makes you like it more, makes you think like it can help you more and you start to think well maybe this will really help me like kind of thing. (Youth)

The desire to add more speakers highlighted the need that these youth have to be connected socially with others who have been through a similar mental illness and can inspire hope in them. The majority of the youth acknowledged that they appreciated and felt encouraged by the guest speakers, however not all of the youth were supportive of adding more speakers. One youth said: "Yeah but then too much speakers…We won't have time for running." So while the speakers are important, the youth still want to have enough time to run.

The parents did not mention specific details about the guest speakers. They did, however, acknowledge that the youth got excited enough about the speakers to come home and tell them:

> Well I know that if he wasn't interested in it or whatever he wouldn't even say anything but he gets in the car and ohh the speaker today and he's ready to talk about it…he's seeing an adult that has been through something devastating and look where he is now- you know. (Parent)

One parent whose child was participating in the running group for the first time said "He [his son] doesn't talk really. We don't really get much out of him, you people are saying that your kids come out and talk all about the speakers." The other parents in the group reassured this father, telling him that over time they noticed that one of the effects of attending the running therapy group was that youth become more open and talkative. This suggests that positive experiences in the group enable youth to develop a greater level of comfort and willingness to speak about their experiences. This may suggest that recovery from the affective disorder is underway.

4.1.2 "Being Where Everyone Else is Like You"

One of the most positive experiences for youth participating in the running group therapy program was that they eventually felt comfortable enough to take some social risks with other youth participants. One youth said:

> Yeah I think it's just like, comforting to be in an environment where everyone else is like you- yeah it's not like in a class room where you're the only person who sits there and can't talk and everyone else is sitting there talking to each other and laughing and you're just sitting there and you're like "I can't talk to anyone in here" I'm not going to just go sit down and talk to someone. But then, like, when you're in, like, a room where everyone else is feeling the same way and everyone else is the same way instead of being like a minority it's just like you're like around people that are the same and feel the same and think the same way and stuff it's like- it's a lot better. (Youth)

This youth talked about his social experience in the running group being different from his experiences at school because he felt comfortable that others in the room shared his experience. This feeling of sameness encouraged him to take a risk and interact with his peers, an experience, he reports, that does not happen outside of the running group therapy program. Another youth agreed:

> Yeah I found that too. When I'm at school and it's like at lunch then I can't really think of anything to input but when I'm here it's like everyone is the same so I can just put stuff in the conversation and I find it easier when you're around people the same as you. (Youth)

One youth discussed his experience in terms of not feeling as though he was being judged:

> Yeah because you don't feel- you know that they're not going to like judge you because like. I don't know I always feel I constantly feel like I am being judged like everyone... Like you're being watched or...Like every time I like do something I'm like "oh shit I hope no one saw that." I don't want everyone to think I'm like huge like person who makes like crazy decisions all the time and then like here it's just like- I don't know- you just- I feel more comfortable because I know that like they're not going to be like- "oh what a loser." (Youth)

In social situations outside of the running group therapy program, he felt conspicuous, as if someone was hoping to ridicule him for a social error. The sameness of the other participants in the group created a safer environment. Another youth echoed this view:

> Yeah it is comforting- I think at first I felt the exact same thing I still do now... you do feel a lot more comfortable when you come together people that all have issues- to me it makes me see people all around me that- I think we all have similar issues like that and it's - you know my dad always tells me "you're the only person- no one else is judging you but yourself" and it's so true and it's like when you come here you feel that comfort and you feel that strength and it's like people coming together that have similar issues to achieve one goal and it does make you feel good. (Youth)

This youth explained how she now realized that she was the only one judging herself; coming to the group and knowing that her peers shared a mental health diagnosis was comforting for her.

While the majority of the youth focused on how they felt at ease talking to their peers in the running group therapy program, there was one youth who expressed that he felt more comfortable speaking with adults:

> I just feel that talking with someone who has been through life a little more- is a little more mature, I kind of like to have conversations with them because umm they get to really share some experience and umm and they too have a lot of thoughts about the world so I just figure that- that well talking to adults is more comforting for me really because they- adults don't usually judge people, and believe me I know that some really do but I'm wary of that I just usually feel that umm that the kids I usually communicate with are too busy judging people that they don't really take the time to think about how someone will react to what they say. (Youth)

When asked if he felt that way about the people in the running group he responded:

> No, No, definitely not I know everyone here...I love to hear what they have to say I mean, about anxiety sure but I just feel that umm that I can't talk to people my own age because they don't really understand what I'm saying. (Youth)

While this youth acknowledged that he enjoys the company of the running group therapy program he also acknowledged that he prefers to be around adults and has been hurt by his peers. He did however feel empowered enough to speak of his different experiences in the presence of other youth from the program.

The coaches also spoke about how social interaction is easier for youth among peers who share a similar mental health diagnosis. One coach said: "[they] liked that there was no tension in the room... everybody was chitty chatting and it was up and it wasn't just coaches chatting. It was the moms and kids and other kids it was nice." The coaches knew that the youth have difficulty interacting with peers outside of the running group; they appreciate the significance of these youth interacting with one another.

4.1.3 Relationships with the Coaches

The youth appreciated the coaches for distracting them with conversation, taking their mind off of the difficulty of the run. One youth said:

> Even when I first started running with the group, I found that I would talk to [name of coach] or any of the other coaches [because] then it's as if you don't concentrate on what you're doing then you don't put yourself down as much. When you're talking to someone else and you do forget the time goes by faster, you're not concentrating on oh man when's the next break? I'm tired, you know like- it's different it's as if you do forget. (Youth)

When asked what part of the program the youth liked best one youth said: "I think the adult runners that actually go with us because... you can always ask them when you're running- like how to improve and what sorts of things you do to help you to run."

The youth talked about their relationship with the running coaches in very general terms, however the coaches and parents believed that this relationship is highly

valued, not only for the running skills and encouragement but for youth to share more intimate struggles. While the coaches were quick to acknowledge that they do not possess therapeutic skills and are cautious not to ask the youth about particular circumstances of their lives, they also noted that close relationships do form between themselves and the youth

One coach shared a story about how she had been running with one of the youth who she thought was not overly interested in the group and tended to be quiet, until one day when she shared a personal story with her. One of the youth and her brother noticed that their Mom would be unable to buy a princess costume for their youngest sister. So, they decided to pool their money, purchase the costume, and surprise their youngest sister. The coach was happy that this young girl would confide in her. This is what she said:

> Saturday morning after Halloween… one of the young ladies who said there was no way that she was even going to come that morning…After Halloween because she was going to be out late… I'm running with her thinking this poor pumpkin's head and she told me about a really special thing that she and her brother who also runs had done for their littlest sister…And she told me this. (Coach)

Rather than pressuring the youth to talk about private details in their lives the coaches take on a supportive role, which creates a comforting relationship between the coaches and the youth.

One of the mothers talked about her son's relationship with one of the coaches. Her son has a passion for art and was selected to design the logo for the team t-shirts. He created the drawing and was able to work with one of the coaches, who was a graphic designer, to finalize the drawing. The mother explained this as a mentoring opportunity: "[Name of son] is really really into art and this coach is also into art. He

has his own art business... it's like a mentoring thing." This mother concluded that her son's experience of the running group therapy program was heightened by this relationship with this coach.

The coaches in the group were there to support the youth and to encourage them to take up the love of running. The youth tended to see this relationship as one that eases the difficulty of running, the coaches noticed a level of comfort between themselves and the youth, and some parents saw the coaches as mentors.

4.1.4 How the Running Experience is Different from that of a Sports Team

Many youth talked about how they had participated on various sports teams. In the past, some played hockey or football, another was on a cross-country and track and field team. None of the youth compared these sports to the running group therapy program. In the parent focus group, the differences between running group therapy and other sports involvements was an important topic.

One of the mothers emphasized that the running group therapy program placed less emphasis on acknowledging the mistakes made by these youth.

> It's the kind of thing they can get into without a huge investment in equipment and apparel. And peer pressure, absolutely, it's a group. But it's also individual. There's not a whole lot of people standing at the side watching you and counting your mistakes. (Parent)

Another mother compared her son's participation when running and when he was playing football:

> Someone could throw that ball up in the air not even near him but it would be his fault because he didn't get it. But if you go running it's different. It's just you and maybe you're running with someone else when he comes to the group but you don't have any responsibility for anyone. (Parent)

When this youth missed the football he felt responsible, even when it was not reasonable for him to have caught the ball. He would internalize this 'failure'. One mother offered this summary:

> When you're running in these marathons, yes, you're doing it with other people but everybody's an individual...Everyone's on the side line encouraging you, each and every one of you - not one against the other- each and everyone of you people...you all won... good for you. (Parent)

She emphasized that for youth winning was the collective achievement of everyone finishing the race. In contrast to other races, this was not a competition to cross the finish line first.

4.2 Experiencing Transformed Self-Perceptions

Many of the youth had preconceived ideas, typically influenced by stereotypes, about how people with mental health disorders behave. The first time the youth attend running therapy these perceptions are challenged. One youth said: "actually when I first joined, I thought everyone was going to be a mess so to speak. Like everyone would be like hiding like just- a really exaggerated form of anxiety." After meeting people diagnosed with an affective disorder his perceptions were challenged:

> ... I thought it was just my mind playing tricks on me everyone- like when I came into the room everyone seems like they are just completely- not that they're not normal but just like-they act like completely normal people like it doesn't even look like they have anxiety at all. (Youth)

For this youth, having the experience of getting to know others with an affective disorder encouraged new thinking about how people behave who have been diagnosed with an affective disorder. In the context of this experience stereotypes and mistaken ideas are challenged and new self-perceptions become possible.

4.2.1 "It Has Changed My Life"

Many youth struggle with pervasive negative thought patterns and ruminate about possible catastrophic outcomes. During the running group therapy program the youth realized changes in their thinking process:

> ...I met this person and [I thought] they're probably not going to like me and then like in a week they're going to stop talking to me and stuff like that... One day I was just like in a bad mood and we were doing a longer run and I was walking. And then, all of the sudden, I just started thinking 'well I can probably do it – if everyone else can do it like I'm not any different' and ever since that day, I've started to think more positively... (Youth)

Another youth noted that since he has been part of the running group therapy program his thinking about how to respond to negative moods has changed:

> Well for me I find that it helps with... because a lot of the problem that I find that I have, when I'm a bad mood and stuff if I just don't want to do anything. If I just want to sit there and just, like... do nothing and then instead of that I'll just, like, go out for a run and then I'll feel a lot better because... it gives you a lot of time to think about stuff... I don't know you, just, feel a lot better. (Youth)

For this youth, having the opportunity to process his thoughts aided him in seeing beyond the negative.

The parents also noticed that the thinking processes of these youth had changed. One mother commented about her daughter that:

> She's getting healthy, going back to school, running, has a new boyfriend, has a new outlook on life…She's planning her future now…Rather than getting stuck in ugh I don't want to go to school and like everyday is sort of like this big thing…You see them tackle the day. (Youth)

This parent's comment illustrated that her daughter's changed thinking has enabled positive new developments in her life.

4.2.2 Increased Self Confidence

Throughout the program, the youth developed a more positive self-image and increased confidence:

> Yeah for the confidence ...you're just like 'I can' instead of just like-thinking all the time that you can't...I think that I am good at running, that I would be able to run a marathon. Why can't I just use that with everything else instead of saying like 'well I can't do this because I just can't' like you start to think like well maybe I can, instead of being down and, like, there's no point in even trying ... it starts to make you think that 'you can' instead of like 'you can't. (Youth)

Another youth commented that:

> It's definitely gave me a confidence that I'd never known before and it really helped me and I'm able to finish school before in grade 9 and 10. I couldn't finish the last part of school and I would always have severe anxiety and last year I finally over came that. (Youth)

At the outset, the thought of running five or ten kilometers was overwhelming. Eventually the youth realize that this is possible. This new confidence is generalized to other areas of their lives. Here is how another youth explained the effect that her increased confidence has had on her life:

> Being active allows me to really cope with everything that I am going through, and it really has opened up doors that I never seen before. Being able to have the confidence to say to my teachers 'I'm struggling and I need help and I don't understand this and I want to know what I'm doing wrong so that when I do go to university that I'm not repeating the mistakes. And volunteering with the kids at my school and things like that, things that I never had the confidence to do.... It has changed my life and I'm a different person than I was before. (Youth)

This youth attributed the change in her life to her experience in the running group therapy program, and continued experience of being active outside the program. Being active helped her to manage her stress and gave her the confidence to take

on challenges. Instead of ignoring or avoiding possible challenges, she had the courage to ask for help.

The experience of increased self-confidence was also observed by the parents. One mother said: "My son, I can see the difference after my son joined the running group, he, he's more confident and more talkative. Before he was very shy and scared to talk with people but right now he talks." Another mother talked about her son being more confident to make the right choices:

> And well, also he felt more confident to make some really good choices. Maybe he was falling in with the group that was smoking and experimenting and stuff. After the running group, I think he kind of realized these people are not where I want to go and he was able to make the decisions to walk away from that. (Parent)

During adolescence, youth experience significant peer pressure and can make compromising decisions in order to conform to peer expectations. Developing the confidence to take a position that might be contrary to peer influences is courageous and possible when youth experience a sense of self-confidence. Without confidence to stand up for what they think is best for them, these youth could start going down a damaging life course.

4.2.3 "They Were Beaming, Just Beaming"

The running group therapy program provided the youth with an opportunity to experience a feeling of accomplishment. The youth felt as though they had been able to do something that they did not think was possible.

> I think the end when we did the finish and I only ended up doing the 5K at the time it was amazing. I think that was the one thing that made me feel like I had really done it and finished it...One thing that I love the most was doing the race particularly because it was my first race and it really inspired me. (Youth)

The majority of the youth did not directly comment on their experience of accomplishment, however the parents and coaches relayed moments where they could see that the youth were proud of what they had been able to do. One mother told a story of what she said to her daughter after finishing a half marathon: "I said 'I'm so proud of you honey'- I've heard it out of her before but not with that same enthusiasm- she said 'I'm proud of me too, mom' and she had the medal around her neck." Another mother commented that: "It's amazing when they say stuff like that."

The coaches also observed the youth's experience of having pride in accomplishments after finishing the final race. Here is how one coach explained that last race:

> Just seeing the look on their faces when they cross the finish line at the spring race that they did. There were tears in their eyes they were like, oh my God, we did it. Like, they were so happy. Their parents were there; they were hugging; you could see that they were beaming, just beaming. (Coach)

One coach said, "We know they can do it but it's when they realize that they can do it, I think that's the awesome thing that we get to see." This comment was directly followed by another coach who added, "Believe in themselves…" meaning that it was remarkable to see the effects of youth who are proud and believe in themselves. Even though the youth do not use the term pride to express how they feel during the program and after the final race, based on the reports of parents and coaches it is evident that they are proud of themselves for their accomplishments.

4.2.4 Perseverance

The experiences that the youth have while being part of the running group therapy program are not always positive. Running is not always an enjoyable experience. It is hard work, tiring, and sometimes the youth may just want to stop. Within the running therapy program, the youth learn to prevail in situations where thoughts and feelings are dictating that they stop.

Many of the youth were reluctant to wake up early on a Saturday morning to go for a run. One youth said:

> Why would I want to wake up at 7:30 to run at 8:30 on a Saturday? But then like once you do it you understand why. And sometimes you kind of look forward to it- well more so Tuesday nights. (Youth)

Another youth said:

> Well when I woke up this morning I was like awwww… and I first thought it was Saturday why am I up this early? And then it's like aww I have to run. but then I go to the run, exhaust myself and then when it's over I feel like energetic and I want to- and like I'm looking forward to the rest of the day. (Youth)

These youth learned that even though something may not be pleasant in the beginning it can get better in the end. The morning that I conducted the focus group was particularly difficult for one youth who said: "For some reason I even felt tired even when I was running but that's just today usually I can- usually I can just keep going and umm it's satisfying; today it's not a good example." Even though this youth found it particularly difficult to run, he still did it and acknowledged that typically there is a positive benefit to his running. Following this comment the youth agreed that because it was cold that day's run was particularly difficult.

The experiences of persevering through the struggles that arise out of a particularly difficult run were evident to the coaches as well. The coaches watch for runners who are struggling and find ways to support them. Here is how one of the coaches talked about persevering through that initial struggle:

> It's hard work. It's like wow man, you have to really work. We have to push ourselves. We recognize it's not easy. It's not easy for anybody and for you guys it's sometimes a little bit tougher.But you just have to try. Just try a little bit and then a little bit. It's contagious- and some of the kids are dealing with adult issues and illness. They don't feel well or I'm sure some of them have medication that they're taking and all of those things. (Coach)

When the coaches or even other youth notice that someone is struggling or falling behind they try to run with them and motivate them to keep going. This motivation helps the youth to persevere beyond the challenging times in the run.

4.3 The Experience of Running

4.3.1 Learning to Run

The running group therapy program is based on a learn-to-run program structure, which incrementally adjusts the ratio of the time running to the time walking. These programs are designed to ease participants into being able to run a desired distance. In learn-to-run programs the participants start by walking for one or two minutes and running for one minute, gradually increasing the amount of time spent running rather than walking over a 10-12 week span until they are able to run the full distance without walking. Here is how one of the coaches explained the learn-to-run aspect:

> He [Dan] starts them at we didn't start at 1:1…we might have started running one minute and walking two minutes… you know he reminds them, let me think we're up to 10:1's now we run 10 and walk one but if

> you can't do that it doesn't matter just keep moving and do the best you can. (Coach)

This structure teaches the youth to gradually work their way up to being able to run the entire duration of the run.

To make the running easier for the youth, the coaches often use the technique of imagery. When the coaches notice the fatigue in the youth, they encourage them to push a little bit harder by setting goals along the route. Here is how one coach explains using this technique: "Sometimes they struggle so then okay you know what we're just going to run to the next mailbox and then we'll walk to the next post and then you can pick the spot we're going to run to next." By breaking the run down into these smaller pieces the coaches are able to motivate the youth to continue. Through achieving these smaller goals, the youth are able to complete their five or ten kilometer run.

4.4Conclusion: Getting the Bug

The running group therapy program provided these youth with an opportunity to have unique experiences that have been shown to improve their mental health. For clarity, these experiences were divided into three types of interrelated experiences: experiences of social ease, experiences of transformed self-perceptions, and experiences of running. Each of these experiences were interconnected. Social experiences often facilitate new self-perceptions, which are further reinforced by the experiences of running and the running also provides a catalyst for the positive social experiences. When these three themes intersect the youth develop the knowledge and confidence to begin to run on their own; this is called "getting the bug."

The social experiences of the youth during the running group therapy program involved being exposed to others who had overcome an affective disorder, finding

comfort in sharing a similar mental health problem with peers and the facilitation of positive relationships with the coaches. Further it was noted that there was a difference between how the youth experienced the running group therapy program in comparison to traditional sports teams. It was interesting to hear how the youth draw comparisons between the social aspect of the running group therapy program and other areas of their lives. The comfort that the youth had with each other was noticeable. One youth told me about how he found it easier to run than have a conversation. As he was doing so, he began to notice his anxiety growing and acknowledged that he needed to stop talking for a minute. All of the other youth in the group seemed to understand and the conversation continued as if nothing had happened. Before I began collecting my data, I felt as though the social aspect would be a large part of the program's success but it was not until I met the participants that I fully appreciated the magnitude of the social component to the group's overall success.

While participating in the running group therapy the youth also had experiences of changed self-perceptions. These experiences involved the youth being able to challenge existing self-perceptions. They gained confidence and were able to feel pride in their newly developed running skills. The youth who had completed the program at least once before were quick to highlight the changes in their lives and share how they have grown. One youth talked about how being in the running group therapy program took her from being suicidal to feeling confident and wanting to go to university. It was evident that these changes had a significant impact in the lives of these youth. The parents and coaches were also able to provide accounts of the remarkable changes in the lives of these youth.

One of the most important considerations for this research is the extent to which youth experience a relationship between the running group therapy and their mental health. All youth reported that running group therapy helped them to feel less depressed and less anxious. Some of the youth were using running and exercise throughout their daily lives to help them manage their mental health symptoms. One youth said:

> I know that if I ever am in a really bad mood, and I need something to like just like pick me up and give me like energy and make me start thinking more positively and stuff. I know that it's [the running] so like it's not hard to do you just – it's always there. It's not something you have to go find and wait for you can just go where ever you want for as long as you want or as short as you want. (Youth)

This youth was able to trust that when his mental health symptoms were too intense for him to manage he would be able to go for a run to alleviate his symptoms. Another youth added:

> [After a run] then I feel emotionally better overall because I'm doing it. And then the days I don't run and I feel horrible and I'm thinking oh man I'm so tired. I feel so stressed out and then I go for a run and then I come back calm and I feel great. You're no longer tired you're energetic you're happier, you get the endorphins going the runner's high you know- you're feeling good. (Youth)

One of the other youth commented:

> You actually feel like you're free like you have so much energy and like ...it's kind of this like Dan called it some kind of runner's high or something and well I just think it really helps my imagination a lot. Just to have that sort of feeling of freeness and I think it really helps with my anxiety. (Youth)

These youth highlighted that they experienced a change in their mood while they were running which allowed them to manage their mental health symptoms. The aim of the running group therapy program was to help these youth to develop a tool whereby they

could alleviate the symptoms of their affective disorder. According to these youth, it appears as though the running group therapy program has succeeded in reaching its aim.

The experience of knowing that running can alleviate the symptoms of their depression and anxiety is what the coaches termed "getting the bug." This is how one coach explained it:

> I mean got the running bug in ya. Like they recognize the benefits and they'll be if they go off to university there are all kinds of opportunities to join other sports and other...But the bug and the confidence and whatever you want to call it that. (Coach)

When youth "get the bug" it means that they are confident about the positive effects of running and run outside of the prescribed running therapy time as a means to reduce the symptoms of their mental illness in stressful times.

The parents noticed when youth were "getting the bug" This is what one mother said about her daughter:

> And in the last year and a half, or two years she's totally turned that around. She'll come home from school at 3 and say 'well I have a lot of homework to do and I have to do this and I have to do that so I'm going for a run'... I mean some days I see her get really tired and she gets bogged down but then she goes running so and it helps. (Parent)

Other parents of youth, who had been through at least one cycle of the group, agreed that their children also use exercise to manage their stress or mental health symptoms.

Though the parent and the youth use different terminology than the coaches they all express their experience with using running to cope with stress and manage the symptoms of their mental illness outside of the running group therapy program. In fact having the youth "get the bug" is one of the central goals of the program.

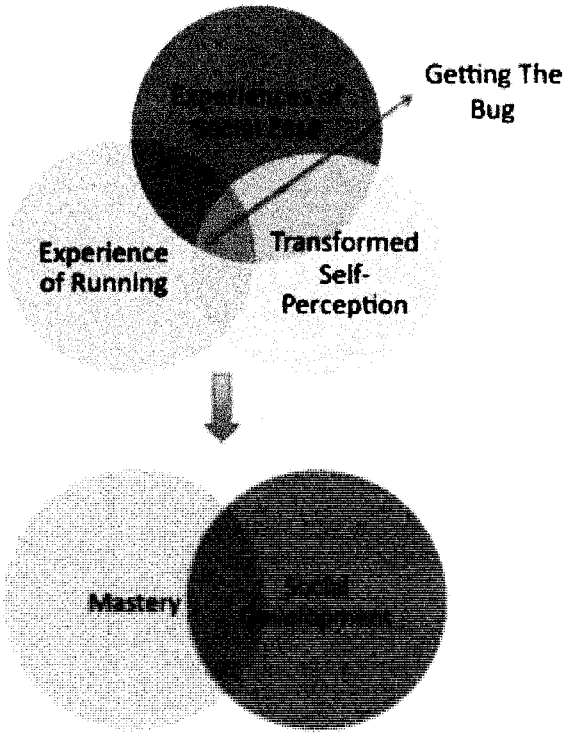
Running demonstrates to the youth that they can do something they thought to be impossible. In this context, they begin to change how they think about different aspects of their lives. Many of the youth "get the bug" and begin to use running in their daily lives to cope with their mental illness. The experiences that the youth had throughout the running group therapy program allowed them to grow and develop, without focusing on the fact that they have been diagnosed with a mental illness. The following section seeks to explain how the experiences of the youth have facilitated the previously mentioned growth and development.

5.0 Discussion: The Development of the Youth Throughout the Program

The aim of this discussion is to parallel these findings with the current literature regarding exercise as a treatment for affective disorders. Based on my understanding of the current literature about effective treatments for youth with affective disorders, the three overarching themes, experience of social ease, transformed self-perceptions and developing running skills, presented in the findings discussion can be re-conceptualized into two broad themes, namely social development and mastery (see Figure 2.0). The experiences of social ease inform the social development concept; the experiences of running and the transformed self-perception inform the concept of mastery. These two interrelated concepts were highlighted in the literature as important aspects for the treatment of youth with affective disorders. For instance an example of their interrelatedness was that as the youth began to reach their weekly goals for running they gained confidence. This confidence eased their anxiety, enabling them to be more engaged in social interactions. While being more engaged in social interactions also increases their confidence.

Figure 2.0

Transition from youths' experiences to key themes found in the literature



Social development involves the youth's ability to interact with their peers as a result of their exposure to others experiencing affective disorders. Mastery involves an increase in the youth's self-confidence. This increase in self-confidence happens as youth develop their self-efficacy by gaining knowledge of various tips, tools, tricks, coping mechanisms, or hints that the youth learn throughout the program that will help them to run the race and also to manage their mental illness after they have completed the running group therapy program.

5.1 Social Development

The social benefits of exercise therapy programs are not fully understood. On one hand, it has been suggested that social support when exercising increases the positive effect when compared to exercising alone because of social cohesion (De

Marco, 2000).In the context of exercise and running, social cohesion has been defined as "a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member' affective needs" (Carron, Brawley, & Windeyer, 1998, p. 213). Other studies report that there was no statistically significant decrease in depression or anxiety while exercising with others (Legrand & Hueze, 2007; Stella et al., 2005). Though the current evidence is mixed regarding the effect of social support in exercise therapy, this study suggests that it may be a central feature in the treatment of youth with affective disorders.

Throughout the adolescent stage of development there is a great emphasis placed on social experiences (Erikson, 1950). The youth tend to emphasize the social reinforcement received from their peers rather than parents or professionals. In this running group therapy program the social experiences of the youth are critical for their development. The youth involved in this program experience positive social reinforcement, they can make mistakes without being ridiculed, they are encouraged to be the best that they can be and they empower each other through sharing the commonality of being diagnosed with an affective disorder. Social cohesion, as it is defined above is certainly a factor in the effectiveness of this running group therapy program.

The social aspect of this running group therapy program might also have a heightened importance in this research because it is similar in some ways to a technique commonly used in Cognitive Behavioural Therapy (CBT). CBT has been shown to be effective in treating both adults and youth with depression and anxiety (Blumenthal,

2007; Ratey & Hagerman, 2008). Exposure therapy, a technique used in CBT, is commonly used for those individuals with phobias or severe social anxiety (Davidson et al., 2005). Exposure therapy typically uses comfortable settings, anxiety reducing techniques and a slow, gradual exposure to the item, or experiences that the individual fears. The running group therapy program is similar. Youth are supported in taking social risks, which is comparable to the incremental exposures in CBT. Once they receive positive reinforcement for taking those risks they begin to take larger risks such as letting others in the group see them make mistakes. It is in this risk taking that the youth are able to develop their social skills and build confidence to interact with their peers beyond the running group therapy program.

The youth also develop socially by creating supportive relationships with the coaches who volunteer their time to run with these youth. These coaches continuously provide the youth with supportive feedback and they share various tips and tricks with the youth so that they will become better runners. The youth are able to develop a trust in the advice and direction that the coaches offer to them. It is because of this trust that the youth also begin to share more private details of their personal life.

5.2 Mastery

Over the course of the running group therapy program, the youth are able to develop a sense of mastery. Craft (2005) explains that mastery develops in exercise programs when the individuals set goals and receive positive support from their peers or others, which increases their self-efficacy thereby leading to a sense of mastery. The development of this sense of mastery begins with the youth challenging their initial beliefs of how people manifest the symptoms of their mental illness. Individuals have

preconceived beliefs often based on stereotypes, about what it means or looks like to have a mental illness (Link, 1989). Preconceived ideas become internalized after diagnosis, causing shame and the intensification of mental health symptoms. The running group therapy program gives the youth the opportunity to meet and get to know others who have been diagnosed with an affective disorder. By meeting these youth they are forced to challenge their stereotype of what having an affective disorder looks like, thereby challenging how they view themselves. This was evident when the youth talked about expecting to see other members of the group hiding under the tables. This experience of interacting with other youth is an opportunity for the youth to see themselves in a different light.

Cognitive restructuring challenges negative thinking and replaces it with healthier thoughts (Davidson et al., 2005). This process occurred numerous times in the running group therapy program. Initially the youth see the possibility of running for over 30 minutes as overwhelming; they do not think that they will be able to finish the runs. However, as the running group therapy program progresses week after week and the youth spend more time running then walking they begin to abandon their belief that they cannot finish the final race and begin to have confidence that they will. This confidence is developed because the youth are encouraged to set realistic goals for the amount of time they will spend running versus walking. Each week the youth are encouraged to reach their goals, and often they do, which facilitates a sense of accomplishment and reinforces the thinking that they can reach their goals. This success increases their self-efficacy. When the youth finally finish their community race they

are filled with a sense of pride, which also increases their self-efficacy so that they can believe that they have mastered the skill of running.

While increasing their mastery of running the participants of this study also experience changes in their physique. Stella et al. (2005) noted that young women who were part of an exercise therapy program experienced an increase in self-confidence because the changes in their physical appearance attracted positive social feedback. While the youth received positive social feedback in this running group therapy program it often had little to do with how they looked and more to do with how much work the youth put into their recovery. The parents and youth acknowledged that there was a noticeable physical benefit with the running, however this was not the focus of their remarks. The increase in self-esteem, whether it is due to the pride the youth have in their accomplishments, from being able to challenge their negative thoughts or from their physical appearance, contributes to an increase in their self-efficacy and sense of mastery.

Each of the focus groups revealed that there are various skills that the youth learn and develop throughout the program. These skills help the youth run the race more efficiently and better manage their symptoms of depression and anxiety. When the youth feel confident in their abilities to use these skills it contributes to their sense of mastery.

Perseverance is an essential skill that the youth develop through their participation in the running group therapy program. When someone perseveres through a difficult situation they focus more on the long-term benefit than the short-term discomfort. Perseverance is important because one reason that youth who experience

affective disorders attempt to or commit suicide is that they are unable to see an end to the pain that they are experiencing in that moment (CMHA, 2009; Chamberlain, 2008). Youth tend to focus on the short-term rather than long-term consequences of their actions and often do not fully comprehend the consequences of their actions (Doobs & Webster, 2003). By encouraging the youth to overcome discomforts and focus on the long-term benefits of running, they also develop a tolerance for negative feelings. Participants' perseverance was evidenced by their ability to wake up early on a Saturday morning to go for a run and by their ability to continue running when they want nothing more than to stop. Once the skill of perseverance has been developed through the running the youth then use it in other situations.

A number of studies have attempted to explain how at a biological level running can be effective at treating adults with affective disorders (see for instance Anisman and Zacharko; 1982; Blumenthal Kendall et al., 1992; Lobstein et al., 1989; Markowitz and Cuellar, 2007; Ratey and Hagerman, 2008; Schmitz et al., 2004; Stathopoulou et al., 2006). Many of these studies note that running is able to create a needed balance in the neurological chemistry. It is reasonable to assume that these effects are also found in youth. As the youth learn to run their experience is consistent with the idea that changesare occurring in their neurological chemistry. Once the youth see that the running is changing their affect, then they begin to use running as a tool to manage stressful times in their life.

6.0 Reflection

When beginning this research project, I was an inquisitive, young student with the personal experience of using running to manage my moods. Numerous times throughout the research I applied this knowledge. Running seemed to ease my feelings of being overwhelmed, motivating me to continue with this project. My relationship with physical activity was my motivation for initiating and completing this research project. I found the running group therapy program to be an innovative and client centered approach to the treatment of youth with affective disorders.

When conducting the focus groups, I was surprised by the enthusiasm shared by the youth, their parents and the coaches. There was ample opportunity to criticize the program, to tell me that it was not worth getting up early on a Saturday morning, but no one did. Many of the youth told me about using running outside of the program to help them manage their moods. Given that a number of these youth are also experiencing other forms of treatment, I was surprised that the participants assign so many of the positive changes in the lives of the youth to participation in the running group therapy program. It was also surprising that many of the youth acknowledged the benefit, not only of running in the context of the running therapy program, but also running independently. It is this choice, to run so that they may moderate their mood, that underscores the success of the program.

I was also surprised by the importance of the social aspect of the running group therapy program, as I had never run with a group before. The ability of these youth to take social risks was amazing to me. When I noticed that one young man had the confidence to acknowledge that he needed to stop what he was saying for a couple

minutes and come back to it, I remember thinking "wow, these youth are really comfortable with each other." It was heartwarming to realize that this running group therapy program provided a place where these youth, who otherwise have very few friends, can come together and find a level of comfort among one another.

I was also surprised that there was little mentioned of the physical changes that happened in the youth and how that had impacted their self-perceptions. Stella et al. (2005) found that the increase in confidence among the youth involved in her study was a result of a more pleasing physique, which attracted positive social feedback. However, physical changes of the youth were only mentioned twice; once from a coach and once from a parent. I think that this is due to the sensitive nature of the topic and because the participants were not directly asked to comment on the physical changes.

Another thing that surprised me throughout this research was that although many people would agree that exercise is good for both your physical and mental health, there was limited research that focuses on what, specifically, was contributing to this relationship. Further, I was surprised that the research regarding youth and exercise therapy was so limited considering that there are very compelling arguments for pursuing alternative therapies for the youth population. One of the greatest challenges in this research was finding literature that went beyond acknowledging that there is a relationship between exercise and mental health. Social work has a history of being flexible to meet the needs of our clients. Perhaps there is a larger role for physical education, or recreation in social work than what was once thought.

While this research provided a number of insights into using exercise as a mental health intervention for youth, I was left wondering if the youth would have

similar experiences if they were not connected to a second form of therapy. There was only one youth, known to this researcher, who was treated only by being part of the running group therapy program and he shared the same experiences of the other youth, and came back to be a mentor for every group since 2006. If the youth were not taking antidepressant or anti-anxiety medication would there still be the same result? I wonder what, if anything, the relationship is between pharmacotherapy and exercise therapy?

I am also curious about how long the elevated mood achieved by running lasts. There was some hint in my research as the parents and youth reported that the morning runs are helpful to set the youth up to have a good day. However, I am still curious as to how long the effect lasts- minutes, hours or days? Further, I am curious about what factors contribute to youth 'getting the bug.' What is the turning point? So while the current research has shown that the youth involved in this running group therapy program have benefited, there are still a number of unanswered questions.

6.1 Member Check

To ensure the rigor of qualitative research a process called member checking often occurs (Elliott, Fischer & Rennie, 1999). Member checking occurs when the researcher shares the findings with participants and invites feedback and commentary. It provides an opportunity for the participants to evaluate interpretations. Member checking is a way for the researcher to give back to the population rather than simply taking their information.

On April 18, 2009, I conducted a member check with the research participants from the focus groups. The program coordinator invited the same people that he had asked to participate in the research focus groups as well as the youth who were

currently participating in the running group therapy program and did not have the opportunity to participate in this research. There were no parents present who were part of the parent focus group and only one of the coaches who participated was present. Many of the youth who participated in the research, as well as many other youth who were currently involved in the program were in attendance.

I began this member check by thanking the participants for being part of the research and then explicated the findings. After each finding I asked the participants if that represented their experience. All of the participants agreed that the findings represented their experience. At the end of the member check I asked if there were any questions, comments or if there was anything that I had missed. One youth raised her hand and said: "I think that the most important thing is having a program we like to do." I agreed and thanked her for the input. Following this presentation I left a draft copy of my results to allow the participants to look at the quotes that I had used in this research.

Further on April 23, 2009, I met with the program coordinator to share the findings of this research. Together we went over the findings in great detail. As he was reading the quotes he was filled with emotion and indicated that he was very proud of the youth and was touched that they were able to realize the benefit of the running program. I was also able to discuss my comparisons of the running program to Cognitive Behavioural Therapy (CBT) and cognitive restructuring. The program coordinator indicated that he had not thought about the program in those terms but once I explicated the link, it was clear. Together the member checks indicated that I was able

to represent the experiences of the youth accurately and remain interpretively close to the data.

7.0 Implications

Social work is ever evolving to meet the needs of the clients; the more options that we have to meet those needs the better prepared we are to help clients. This study suggests that the running group therapy program is a unique and promising intervention in the treatment of youth with affective disorders.

The running group therapy program was not designed to be the sole treatment option for these youth; the majority of them were taking medication, and seeing a psychologist, psychiatrist or another type of clinical therapist. Due to the difficulties of using pharmacotherapy and talk therapy with youth, the running group therapy program was intended to complement these traditional forms of therapy.

While the youth in this running group therapy program receive other forms of therapy in combination with the running, there is merit to the idea that running programs could be used on their own to treat youth with affective disorders. Recent research by James Blumenthal (2007) suggests that aerobic exercise has the same effect as antidepressants. Further, Ratey and Hagerman (2009) have illustrated that exercise is not only effective in treating affective disorders but also in many mental health disorders such as addictions, attention deficit hyper activity disorder and others. While there is support for implementing exercise therapy programs as a stand-alone intervention, this must be done with caution to ensure that an exercise program would be a compatible intervention for the client. Further, caution should be used when referring clients with eating disorders to an exercise program as it may reinforce their belief in their negative body image or be a way for them to further restrict their caloric

need. There are many unanswered questions regarding why, or how exercise alleviates the symptoms of affective disorders, especially in youth; thus the implementation of these programs should be undertaken with caution.

7.1 Core Components of a Successful Running Group Therapy Program

This research suggests that there are a number of key elements that contribute to the success of running group therapy programs. There is a need for a well-developed and comfortable atmosphere. It is important for the youth to know that the other participants have a diagnosis like them. They are exposed to success stories that are inspiring and create hope for the future of these youth, while at the same time placing very little emphasis on the disorder itself.

One of the youth noted that the last thing she wanted to do at the height of her mental illness was think or talk about herself, she wanted nothing to do with living and found it difficult to talk to her psychologist. To contrast this experience she felt comfortable coming to the running group because she knew that she was not expected to talk about herself, was surrounded by others experiencing a similar mental illness, and could focus on running. Other youth commented that they appreciated how in the running group therapy there were no expectations for them to talk, they knew that they were there to run and believed that running would help their moods. It may be that the running group therapy program is a useful way to engage youth in a therapeutic process without inducing anxiety. Further by meeting others who are experiencing mental illness, the adolescent has the comfort of knowing they are not alone with their illness.

Further, exercise interventions should be aimed at reducing the stigma associated with having a mental illness. This running group therapy program reduces

the stigma associated with being diagnosed with a mental illness. The youth described how their experience of having a mental illness made them feel isolated, they had difficulty making and sustaining friendships and were fearful of what others would think of them. The ability to reduce the stigma attached to being diagnosed with a mental illness is less likely to be accomplished using conventional therapies. The social development and the development of a sense of mastery combine to create an atmosphere where the youth can challenge the stigma in a place where they feel safe. This combination of social development and mastery is unique to the running group therapy program, however should be at the core of other exercise therapy programs.

It is also necessary for a successful running group therapy program to be designed to encourage incremental successes in the lives of the youth. The learn-to-run model that slowly increases the ratio of running to walking is important. The youth are slowly eased into running but rather quickly begin to appreciate their increased skill. Enthusiastic running coaches who are able to encourage and reinforce successes would be an asset.

Lastly, there needs to be a shift in focus away from the mental illness. I found it particularly interesting was that unlike conventional therapies, the running group therapy program has a very limited focus on mental health issues. Youth are aware that their peers are experiencing similar mental health concerns. This seems to reduce their experience of isolation and it helps them to shift their perceptions of themselves. Guest speakers and the program coordinator share their personal stories of overcoming their mental illness. These stories seem to inspire the youth to believe that the can recover from their mental illness. The remainder of their time in therapy is focused on running.

They developed confidence in their physical abilities, learned tools that will help them to run better, and then applied these running skills in their daily lives. Mental health professionals are aware of the importance of making the youth feel as though they are not alone in their struggles with a mental illness; they should make an effort to normalize adversity in adolescents.

There has been an epistemological shift from the use of elaborate inferential therapies such as psychoanalysis to constructivist theories which are less elaborate and focus on how the client views their world (Dobson, 2002). Constructivist therapies include approaches like narrative therapy, solution focused therapy, and cognitive behavioural therapy (CBT). In each of these techniques, there is an emphasis on altering the 'thing' that is associated with negative feelings. For example in narrative therapy the client is asked to externalize the problem and to create distance between it and themselves. In solution focused therapy the emphasis is on solutions rather than the client's problems. In CBT the emphasis is on altering how the clients thoughts, feelings and behaviours influence one another. The therapeutic shift that happens in the running group therapy program places the emphasis on a seemingly unrelated activity. The growing support for use of exercise as a form of therapy may be contributing to a shift in how mental health professionals understand treatment for youth experience mental health issues.

7.2 Challenges in Creating Successful Running Therapy Programs

The risk of any novel approach to intervention is that it may be viewed as a supplementary, perhaps less important, intervention in mental health treatment. Due to the economic turmoil currently being experienced around the world, a number of

programs in clinics and hospitals have been cut or reduced. Pharmacotherapy and talk therapy are conventional methods, covered by many health plans and they are usually seen as necessary services. Unfortunately a novel running group therapy program, despite its effectiveness, may be seen as an extra service and cuts to it may occur to create more clinical time for the therapist who is leading the program.

Further, running is a specialized skill not taught in the curriculum of social work courses so while some social workers may be runners it is not to say that all have this knowledge. Further not all social workers that are runners are necessarily connected to the running community. This program was developed because the coordinator personally experienced its benefit; he was part of the running community in Mississauga, he could recruit coaches, and he had learned how to run as well. Not all running group therapy programs need to be structured in the same way, however to ensure the safety of the youth there do need to be coaches. Because the physical and psychological elements of an exercise therapy program are woven so tightly together there is a need for interdisciplinary connections with colleagues from physical education and leisure disciplines.

8.0 Directions for Future Research

Given the findings in the current research project there are a number of recommendations for future research. A small number of studies suggest that physical exercise, alone, is effective for treating affective disorders (Blumenthal et al., 2007, Stella et al, 2005). Based on the highly favorable reports of youth response to running group therapy shown in this study, future research employing randomized controls, to explore outcomes for youth who participate in running therapy as their only treatment is indicated. Experiments that use randomized controls are able to control for intervening variables that may be causing the decrease in symptoms other than the exercise (Chalmers, Smith, Blackburn, Silverman, Schroeder, Reitman, Ambroz, 1981). Currently, it is suggested that the highest standard of research for medical interventions involve systematic reviews of randomized control trials. Thus, to ensure that exercise therapy is a safe and effective intervention it would be beneficial to evaluate the findings of many randomized control trials, however to do that there first must be an adequate number of randomized control trials.

Additional research on how the adolescent brain reacts to physical exercise would be helpful in pinpointing the biological effects of exercise in youth with affective disorders. Currently, knowledge of the biochemical reactions in the brain during exercise has been limited to adult brains that are assumed to be fully developed. More information is required about the effects of exercise on adolescent brain function and on its development over time.

This research provides important information underscoring different outcomes between youth involvement in running therapy and participation on sports teams. A

more thorough, carefully nuanced study of these differences is indicated. Additionally, longitudinal research to evaluate the long-term effects of the running group therapy would provide insight into sustainability of the positive effect of the running group therapy program. It could be that the running group therapy program alters the neurological composition of these youth thus creating lasting changes in the lives of these youth. Longitudinal research is indicated to add to the understanding of this possibility.

9.0 Strengths and Limitations of this Study

Given the limited number of people who have been involved in the running group therapy program at Credit Valley Hospital the number of participants who responded to the invitations was excellent for all focus groups. Approximately 20% of all those people who had been involved in the running group since its inception in 2006 participated.

The various perspectives represented in this research inform a multidimensional understanding of the youths' experiences in the running group therapy program. The strategies for handling the data allowed me to gain an intimate knowledge of the data. Prior to collecting the data, I gathered background information through the literature review and discussions with the program coordinator, which allowed me to anticipate what I might find. I then conducted the interviews, made process notes, transcribed them and listened to them again for editorial purposes. I was immersed in this data for many months.

There are some limitations to the data collection strategy. Some researchers argue that an individual voice is lost when conducting focus groups as members of the group may censor their thoughts and feel uneasy about sharing their opinions that may go against what others are saying, a phenomenon Irving Janis (1982) termed "group think". There were two less active participants in the youth focus group whose voices were heard less frequently, although I tried to encourage their participation.

Groupthink can often be avoided when people in focus groups share important similarities. Each of the focus groups consisted only of peers; the youth were with other youth, parents with other parents, and coaches with other coaches. The program

coordinator was not invited to take part in any of the focus groups because the authority he holds as the program coordinator may have constricted the discussion. While there was consistency among the peer groups, the diversity of their experiences emerged in the discussions. Different youth were at varying stages in their mental health recovery, parents had varying experiences of their youth's involvement in the program and the coaches had different experiences.

A further limitation to the data collection strategy was the difficulty distinguishing among voices on the tapes. To increase anonymity and confidentiality among the participants, they were not asked to provide their names during the focus groups. Being able to distinguish voices allows the reader to recognize when groupthink is happening and prevent the over use of data from a particular participant. While this researcher was unable to distinguish voices, the amount of participation among the members was noted in the process notes. Although there were two participants in the youth focus group who said little except when encouraged to comment, there seemed to be a relatively equal level of participation among the remaining six youth The parents were able to self-moderate; they realized when they were speaking too often and called upon one of the other parents who had perhaps not spoken as often. The coaches also shared the discussion time evenly. Thus, while the voices were generally indistinguishable on the voice recordings, I am confident that all participant voices were heard and represented in the research process.

My personal experience may be seen as both a weakness and a strength. Traditionally it has been argued that such a history creates a bias and confuses the ability to analyze and interpret the data, which calls into question the findings and

assertions. The more current argument is however, that a personal connection to the research interest cannot be separated from the work and a failure to acknowledge this self-interest compromises the integrity of the work (Kacen & Chaitin, 2006). Though I use exercise in my day-to-day life to maintain physical and mental health, there are a number of aspects to this practice that separate me from the participants. For me, the strength of this personal connection is that I can appreciate the work that the youth put into their recovery but I am far enough removed from the situation to remain relatively objective. I have matured beyond the age of adolescence and have never participated in a running group therapy program but am intrigued by its therapeutic potential. I believe that my experience with running and depression enhances my inquisitiveness about the possibilities for running group therapy.

10.0 Conclusion

While listening to the parents and youth tell stories about their lives before they were connected to the running group therapy program, I realized how important mental health interventions are for youth. Many of these youth were on the path to destructive behaviour; some were using drugs, had thoughts of suicide and were socially isolated. Through being connected to the running program and general mental health services these youth were able to overcome these destructive behaviours and set their lives back onto a positive trajectory. The important element for me was that being able to treat these youth before they became adults gave them a better prognosis.

By giving the youth the tools they need to manage their affective disorders in adolescence, rather than in adulthood, there is the potential to prevent the negative coping mechanisms and to set the youth on a positive life course. Much of social work is focused on supporting individuals who have been suffering from mental health concerns for many years to rebuild their lives. It would seem that an early intervention that equips youth with the confidence and the practical skill set to manage mental health issues is a wise investment in the field of mental health. I believe there needs to be more emphasis on prevention. Promoting physical fitness as having a positive effect on mental health as well as physical health is one way to prevent serious mental health problems.

My experience throughout this research study has been one of many hills and valleys. When conceptualizing my idea for the research I was concerned that the relationship between exercise and mental health may be one of common sense, not warranting research. Through the literature review and proposal process, I began to

realize that there was a need for this research, however it was not until I sat in the room for the first focus group with the parents, that I truly comprehended the importance of this research.

The parents shared stories of their adolescent children; some had been bullied to the extent that they were afraid to leave their house or connect to the Internet. One young man had been in such a toxic relationship with a girl from school that his mother reported that he had lost all self-esteem; two of the parents told me how their children were physically harming themselves and expressing suicidal thoughts. To me it seemed as though the youth in this program had lost their "youthfulness". Hearing about the lives of these youth before they entered into the running group therapy program was heart breaking and it made me appreciate the importance of mental health interventions for youth. It was evident that these parents cared deeply for their children; you could see the worry and strain on their faces when talking about the negative experiences these youth had gone through. You could also, however, see the delight and joy in the faces of these parents when they talked about how their child has recovered or was showing improvements.

If I had any further doubts about the importance of my research they were extinguished in the focus groups with the youth and coaches. Hearing the youths' stories about how they have used the running group program to manage their mental illness was inspiring. These youth have taken action; they did not sit idly by and let recovery happen to them, they actively engaged in the process. I would like anyone who thinks youth are lazy to meet this group of youth. Further, the coaches showed incredible enthusiasm for the program; they care deeply about it and the youth

involved. When telling a story about the change she saw in one of the youth, tears came to the eyes of one of the coaches.

Conducting this research was an incredible process for me. I learned that not all intervention programs need to be based in conventional approaches and that believing in the therapeutic process is immensely important. As a profession, social work has adopted and adapted expertise from various other fields. I believe social workers should aim to meet the clients where they are at and to do so they need knowledge of a variety of possible effective treatments. Social workers should encourage interdisciplinary approaches and draw on the expertise of recreational therapy to incorporate physical activity into the treatment plans of youth.

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Appendix A: Guides for focus groups

Guide for focus group with youth

1. What was your first reaction to the running group therapy program?
2. Who first suggested this program to you?
3. Do you think it helped manage your mood?
4. What skills, if any, did you learn from the program? Do you think you will use these in the future?
5. How do you think it helped to manage your depression or anxiety?
6. Overall, would you recommend the program to someone else who was in a similar situation as yourself?
7. What did you like your dislike about the program?
8. Is there anything else you would like to tell me about your program?
9. Do you run on your own? What is it about running with this program versus running on your own that helps manage your mood?
10. Can you tell me a story about how running has helped you?

For the returning youth

11. Why did you decide to participate in the group again?
12. How does running help you now versus when you were in the first group?

Guide for focus group with the parents.

1. What was your first reaction to the suggestion that your child participate in a running group therapy program?
2. Who first suggested this program to you?
3. What were your perceptions going into the program?
4. Why did you think this would work for your child?
5. Do you think that running had an impact on your child's mood? What was the impact?
6. Why do you think the running had an impact on your child?
7. Did you attend your child's program ending run? How did it make you feel to see your child finish the program/race?
8. Have you used anything that your child learnt to influence how you manage your day-to-day life?
9. Is there anything else you would like to tell me about your child's involvement in the running group therapy program?

Guide for focus group with thecoaches

1. What was your first reaction to the suggestion that your child participate in a running group therapy program?
2. Who first suggested that you volunteer with the program?
3. What motivates you to be part of the program?
4. Why do you think the program is effective or ineffective?
5. What do you think are the most valuable aspects of the program?
6. What do you think are the least valuable aspects of the program?
7. Is there anything else you would like to tell me about your involvement in the running group therapy program?