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Addressing Physical Activity in Psychotherapy: Theoretical Orientation and Mind-Body Dualism

by

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Abstract

Despite the substantial research illustrating the positive effects of physical activity on mental health, there are few studies examining the role of exercise in psychotherapy. This study examined factors associated with psychotherapists addressing physical activity with their clients. To examine this relationship, psychotherapists (N=118) completed questionnaires assessing theoretical orientation and mind-body dualism attitudes. Participants rated the likelihood they would address exercise with a client described in a case vignette and results indicated high rates of addressing physical activity with this client. The hypothesis that cognitive/behavioural and psychodymanic/psychoanalytic approaches would correlate with addressing exercise was not supported. Unpredicted relationships between exercise discussion and the humanistic/existential and constructivist/narrative/solution-focused orientations were found. The hypothesis that mind-body dualism attitudes would negatively correlate with the likelihood of addressing exercise was also not supported; however, this may be due to weak measurement of the mind-body dualism construct.

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Chapter 1: Introduction

Research has overwhelmingly and consistently demonstrated the positive effects of physical activity on mental health (e.g., Babyak et al., 2000; Landers & Arent, 2008; Long & van Stavel, 1995; Paluska & Schwenk, 2000; Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1991; Strathopoulo et al., 2006; Wipfli, Rethorst, & Landers, 2008). Physical activity plays an influential role in decreasing depressive and anxious symptoms and in bolstering self-esteem, mood, and overall psychological wellbeing (Landers & Arent, 2007). It has even been demonstrated to positively influence cognitive functioning (e.g., Colcombe & Kramer, 2003; Heyn, Abrue & Attenbacher, 2004; Hillman, Erickson, & Kramer, 2008; Landers & Arent, 2007).

Despite this abundance of literature documenting these positive effects, psychotherapists do not have the tendency to assess clients' exercise habits or to recommend physical activity during therapy sessions (Barrow, English, & Pinkerton, 1987; Burks & Keeley, 1989; McEntee & Halgin, 1996). The primary goal of the present study was to investigate what makes therapists more or less likely to raise the issue of exercise with their clients. To gain further understanding of this issue, a secondary goal of the study was to update knowledge of the current rate at which psychotherapists address exercise during therapy.

One explanation for this tendency is theoretical orientation. Findings have been mixed regarding whether theoretical orientation influences the likelihood a psychotherapist will discuss exercise with clients (Barrow, et al., 1987; McEntee

& Halgin, 1996). Due to these inconsistencies, the present study intended to generate a clearer picture of this relationship.

In addition to the research regarding theoretical orientation, another explanation is that attitudes regarding mind-body dualism may be an important barrier to discussing exercise in psychotherapy (Faulkner & Biddle, 2001; McEntee & Halgin, 1996). For example, in analysis of interviews with psychotherapists, it was concluded that exercise is often not addressed with clients because, "many therapists simply do not see their work as pertaining to the body" (McEntee & Halgin, 1996, p. 55). Considering these qualitative accounts, it can be expected that those who have a greater tendency to perceive the body and mind as distinct would be less likely to discuss exercise in therapy sessions. Up to this point, there have been no quantitative studies demonstrating the presence of this proposed relationship.

Considering this research, the last objective of this study was to determine whether there is a relationship between mind-body dualistic attitudes and the propensity to discuss exercise in a psychotherapy session.

Overall, this study aimed to examine factors that make a therapist more or less likely to discuss physical activity in psychotherapy. First, a discussion of research examining these variables will be presented. Next, an outline of the steps taken to investigate the relationships between exercise discussion, theoretical orientation, and mind-body dualism will be described. Finally, the results will be described, analysed, and critiqued, comparing and contrasting the findings with

other research. There will also be a discussion involving implications for counselling and possible directions for future research.

Chapter 2: Literature Review

The discussion of physical activity in psychotherapy has received little attention in the literature. Research that has been conducted in this area has found links between the attitudes of therapists and their likelihood of addressing exercise in therapy (Barrow et al., 1987; McEntee & Halgin, 1996). Theoretical orientation is one factor that strongly influences the decisions made by therapists and may be related to psychotherapeutic discussion of exercise (Barrow et al., 1987). There have also been qualitative discussions around the barriers of discussing exercise in therapy, with mind-body dualistic attitudes being a main factor mentioned in these accounts (Faulkner and Biddle, 2001; Hays, 1999; McEntee & Halgin, 1996). This literature review will provide background research examining the variables of physical activity and mental health, mind-body dualism in psychotherapy, and theoretical orientation. Research linking these variables will be discussed and issues in researching these areas will be presented.

Benefits of Physical Activity on Mental Health

There is a general consensus among health professionals that physical activity is an important element of physical health and wellbeing (Warbuton, Katzmarzyk, Rhodes, & Shepard, 2007). The Canadian Public Health Association estimates that approximately one third of deaths related to coronary heart disease, one quarter of deaths related to osteoporosis and stroke, 20% of deaths related to hypertension, type two diabetes, and colon cancer, and 14% of deaths related to breast cancer could be prevented if the entire population of Canada were to adhere

to the current physical activity guidelines (Warbuton et al., 2007). These statistics stress the importance of physical activity to individual health and wellbeing.

Definition of exercise and physical activity. In reading research literature and common press, it is notable there are two common terms used to describe the deliberate physical movement of people: *exercise* and *physical activity*. The World Health Organization (WHO) (2010) defines physical activity as, "any bodily movement produced by skeletal muscles that requires energy expenditure." The Public Health Agency of Canada (2010) shares the WHO (2010) definition of physical activity and describes exercise to be a specific component of physical activity along with other activities such as, "physically active leisure pursuits,...sport, work that requires physical exertion, chores in and around the home, and other movements that increase the individual's total energy expenditure." They describe exercise as, "a form of leisure-time physical activity that is usually performed on a repeated basis over an extended period of time (exercise training) with a specific external objective such as the improvement of fitness, physical performance or health."

In her discussions on exercise and mental health, Hays (1999) defines exercise as, "organized, focused physical activity that involves a certain amount of exertion" (p. 4). She describes using the terms exercise and physical activity synonymously in her writing, but mentions that the term physical activity has become more popular over the past number of years as it does not carry some of the "pejorative obligation" (p. 4) that is associated with the word exercise. Consistent with Hays, much of the literature regarding exercise and physical

activity uses these terms interchangeably (e.g., Biddle, Fox, & Boutcher, 2000; Moore & Adams, 2008). As this study aims to examine both broad physical exertion and focused exercise practices, these terms will also be used interchangeably in the present discussion.

Physical activity and mental health. While it is common knowledge that physical activity is beneficial to physical health, research has also consistently illustrated its significant impacts on improving mental health (Babyak et al., 2000; Biddle et al., 2000*;* Landers & Arent, 2007; Paluska, & Schwenk, 2000; Wipfli, et al., 2008).

Depression. There is substantial support in the literature for an inverse relationship between depression and physical activity (Dishman, Washburn & Health, 2004; Mutri, 2001; Paluska & Schwenk, 2000). A lot of research has also focused on the causal effects of exercise in decreasing depressive symptoms. Two early meta-analyses reviewing these studies determined that exercise had a significant effect on reducing depressive symptoms (Craft & Landers, 1998; North, McCullagh, & Tran, 1990); however, these analyses included studies without control groups or randomization, so these findings have been criticised by later reviews (Lawlor & Hopker, 2001). In a more recent meta-analysis, Lawlor and Hopker examined only randomized controlled studies and found significant effects of exercise interventions on depression compared to no treatment, and determined that exercise was as effective as cognitive behavioural therapy in decreasing depressive symptoms. However, they concluded that these results were to be taken with caution, as many of the studies analysed were of poor quality.

They also reported that they were unable to determine whether exercise was effective in the long term due to lack of adequate follow-up (Lawlor & Hopker, 2001).

Since publication of this meta-analysis, a number of quality randomized controlled studies have been conducted. Bakyak and others (2000) examined the effects of a four-month exercise intervention for adults diagnosed with major depressive disorder. Participants were randomly assigned to an exercise group, an antidepressant medication group, or a group receiving a combination of the two interventions. While all three groups demonstrated clinically significant decreases in depressive symptoms after the treatment, those who engaged in exercise were significantly less likely to relapse than those receiving only medication, illustrating the importance of physical activity in the long term treatment of depression (Babyak et al., 2000).

Later studies have supported these findings. In examining individuals with major depressive disorder, after four months of an exercise intervention, those who participated in an exercise condition had higher remission rates than those in a control group (Blumenthal et al., 2007). Knubben and colleagues (2007) obtained similar results with an even shorter exercise program. After only ten days, exercising participants' depressive symptoms decreased significantly more than those in a placebo control group and these results were clinically significant. Consistent with these findings, Brenes and colleagues (2007) discovered that in older adults with minor depression, those participating in

exercise treatment or in antidepressant treatment had improved depression scores compared to those receiving usual care.

While the general perception in the 1990s and early 2000s was uncertainty whether physical activity was effective in decreasing depressive symptoms, the more recent randomized controlled studies have created greater confidence (Strohle, 2009). This recent research has established that exercise can be as effective as medication in treating depression (Babyak et al., 2000; Paluska & Schwenk, 2000). It has also been found that those who benefit the most are those with the most severe depression and those who are the most obese or unfit (Landers & Arent, 2007). It does not seem to matter what type of exercise in which one engages (i.e., whether anaerobic or aerobic); both are helpful in decreasing symptoms of depression (Landers & Arent, 2007).

Anxiety. There is also substantial research examining the relationship between physical activity and anxiety. Similar to the depression literature, there have been numerous meta-analyses conducted to analyze existing studies (Long & van Stavel, 1995; Petruzzello et al., 1991; Wipfli et al., 2008). Petruzzello and colleagues examined literature on both state anxiety (temporary anxiety due to the presence of a stressor) and trait anxiety (stable propensity to be anxious) in non-clinical populations. They found that physical activity was associated with decreases in state anxiety, but were unable to determine wheter it was effective in decreasing trait anxiety. These researchers also determined that physical activity was equally effective as other treatments for anxiety such as meditation and relaxation. A later meta-analysis found similar anxiolytic effects of physical

activity (Long & van Stavel, 1995). This review also revealed that those who led a more stressful lifestyle benefited the most from exercise (Long & van Stavel, 1995). This suggests that exercise can be especially helpful for those who experience a lot of stressors with corresponding states of anxiety.

These early meta-analyses included studies of varying quality, as they included research that did not match the rigor of randomized controlled studies. Wipfli and colleagues (2008) carried out a meta-analysis using only randomized controlled trials to strengthen the analyses that had already been conducted. Through this review they determined that exercise alone was effective in decreasing states of anxiety. They reported that physical activity was as effective as psychotherapy in decreasing anxiety levels and that it was nearly as effective as medication (Wipfli et al., 2008). The results of this meta-analysis suggest that exercise can be as effective as other interventions for those suffering from anxiety, similar to the research examining physical activity and depression.

These meta-analyses have mainly looked at the changes in state anxiety after short periods of exercise. The relationship between physical activity and chronic trait anxiety is less clear (Petruzzello et al., 1991; Paluska & Schwenk, 2000). Research shows that trait anxiety may moderate the extent to which physical activity decreases states of anxiety in individuals. In a study examining the changes in state anxiety following exercise, it was found that those with higher levels of trait anxiety reported lower state anxiety scores following the exercise intervention (Motl, O'Connor, & Dishman, 2004). These results suggest

that physical activity may be the most beneficial in reducing stressful states for those who have chronic, longstanding anxiety.

Overall psychological wellbeing. Physical activity is also beneficial for improving mood and overall psychological wellbeing for people who do not suffer from psychological disorders. Fox (2000) reviewed the literature on the effects of exercise on self-perceptions and self esteem. Of the randomized controlled studies examined, 78% found positive changes in some aspects of physical self-esteem or self-concept. The findings were more robust for aspects of physical self esteem, such as body image, than for global self esteem (Fox, 2000). Other studies since this review have supported the idea that physical activity positively impacts self esteem and overall psychological wellbeing. One study controlled for genetic and childhood differences in their examination of monozygotic twins who were discordant in the amount they exercised (Johnson & Krueger, 2007). The exercising twins displayed significantly higher psychological functioning than the non-exercising twins. Consistent with these results, a randomized controlled trial comparing an exercise and health education program to a wait-list control group found that those in the intervention group had significantly lower scores in reports of stress, depressive symptoms, and higher mental and physical quality of life (Atlantis, Chow, Kirby, & Singh, 2004).

Physical activity positively influences psychological functioning at various developmental levels; it improves psychological wellbeing in the elderly (Krawczynski & Olszewski, 2000) and in adolescents and children (Crews, Lochbaum, & Landers, 2004; Wiles et al., 2008). It also increases positive affect

and overall quality of life for women undergoing menopause (Elavski & McAuley, 2007; Villaverde- Gutierrez at al., 2006) and improves mood, self-esteem and overall energy in pregnant women (Poudevigne & O'Connor, 2006).

The effects of physical activity on mood and psychological wellbeing have even been studied in a workplace context. In a study of employees at an information technology company, exercise participation was found to be directly linked to improved self-worth, personal satisfaction and enthusiasm at work. Exercise was also indirectly linked to job and life satisfaction and self-esteem (Thogersen-Ntoumani, Fox, & Ntoumanis, 2005).

While a detailed discussion of the mechanisms behind the efficacy of exercise in increasing mental health is beyond the scope of this paper, there are a number of psychological explanations: distraction from problems (Breus & O'Connor, 1998), increased social support when exercising with someone else (Carless & Douglas, 2008; Crone, 2007; Crone, Smith, & Gough, 2005), and increased self-efficacy and sense of mastery (Cairney, Faulkner, Veldhuizen, and Wade, 2009; Craft, 2005; Netz, Wu, Becker, & Tenenbaum, 2005). A number of physiological explanations have also been proposed, such as releasing endorphins (Acevedo & Ekkakakis, 2006; Landers & Arent, 2007; Paluska & Schwenk, 2000), improving the function of neurotransmitters (Crabbe, Bunnell and Dishman, 2000; Dishman, 1997; Meeusen, 2006; Landers & Arent, 2007; Yoo, Tackett,), and facilitating neurotrophins such as brain-derived neurotrophic factor (Landers & Arent, 2007; Russo-Neustadt, Beard, & Cotman, 2000; Russo-Neustadt, Ha, Ramirez, & Kesslak, 2001).

In summary, exercise has been found to decrease symptoms of anxiety and depression as well as to improve overall psychological wellbeing in the areas of personal satisfaction, self-esteem, and overall energy and enthusiasm.

Physical activity and psychotherapy. Despite the positive physical, affective, and cognitive effects of exercise, Hays (1999) points out that even though there is currently general widespread knowledge of its benefits, there are still many individuals who do not engage in regular exercise. She argues that this is largely due to the way we as a society conceptualize physical activity as being obligatory (i.e., exercise being something we "should" be doing). She suggests that instead we need to think about it as an essential part of human life; even though we have increasingly sedentary occupations, we are still animals whose biological make-up is made for movement. She discusses the importance of psychotherapists in taking an active role to promote physical activity (Hays, 1999). Moore and Adams (2008) agree with this line of reasoning. Based on the substantial amount of research linking exercise and mental health and the effectiveness of behavioural change techniques in promoting health behaviours, Moore and Adams (2008) describe exercise as an "adjunctive evidenced-based treatment" to other psychotherapy modalities (p. 161). They argue that physical activity is a safe and cost-effective intervention for issues such as depression, anxiety, alcohol, and other chronic health concerns (Moore & Adams, 2008).

Despite this rationale, there have been few studies examining the actual practice of addressing physical activity with clients in psychotherapy. Research that has been conducted reveals that psychotherapists differ in their likelihood of

discussing exercise with clients (Barrow, et al. 1987; McEntee & Halgin, 1996). In an early study, Barrow and colleagues (1987) surveyed psychologists and assessed their frequency of recommending exercise to clients. Most psychologists sampled (52.86%) reported they "occasionally" recommend exercise to clients, 30% reported "routinely" recommend exercise, 10% reported recommend exercise "all the time," and 5% of psychologists reported "never" recommend exercise during psychotherapy (Barrow et al., 1987).

It appears that therapists' personal attitudes and physical activity behaviours are factors related to physical activity discussion. Royak-Schaler and Feldman (1984) examined how the health behaviours of psychologists influenced their likelihood of discussing exercise in psychotherapy. They found that those psychotherapists who were more likely to practice health-promoting behaviours, such as physical activity, were significantly more likely to recommend exercise to clients. Similar results were found in a study by McEntee and Halgin (1996). Psychotherapists were provided with a brief clinical case vignette describing a client with low self-esteem, mild depression, mild anxiety, and moderate levels of stress and were asked to rate the likelihood they would address exercise with this client. There was a significant positive relationship found between the degree to which the therapists exercised and how likely they were to address the issue of physical activity with the client (McEntee & Halgin, 1996). Therapists who exercised most frequently were also more likely to believe that exercise would be beneficial to psychological functioning and those therapists who believed in the efficacy of exercise for psychological health were more likely to address physical

activity with the client in the case vignette (McEntee & Halgin, 1996). It appears that the attitudes therapists have towards physical activity impacts their likelihood of addressing exercise with a client. These findings linking personal attitudes and exercise habits with counselling practices were also observed in a sample of medical students (Lobelo, Duperly, & Frank, 2009). Those medical students with healthier habits were significantly more likely to counsel their patients on exercising (Lobelo et al., 2009).

Gender is another factor that has been linked to exercise discussion in psychotherapy (McEntee & Halgin, 1996). Male therapists were found to be more likely to address physical activity with their male clients than with their female clients. Female therapists were found to discuss exercise equally between their female and male clients (McEntee & Halgin, 1996). These results suggest that male therapists may experience some barriers to addressing physical issues such as exercise with females. It is possible that male therapists may fear offending or crossing boundaries with female clients (McEntee & Halgin, 1996).

Most of the research examining exercise discussion in therapy is from a number of years ago (Barrow et al., 1987; Burks and Keeley, 1989; Faulkner and Biddle, 2001; McEentee and Halgin, 1996). It is possible that the attitudes and behaviours regarding physical activity in psychotherapy has changed since these studies were published. Increased health promotion for physical activity, such as the use of mass media campaigns to increase exercise, may have positively changed therapists' attitudes towards physical activity (Craig, Bauman, & Reger-

Nash, 2009). One of the aims of the current study was to generate current data on physical activity discussion of psychotherapists.

Enablers and barriers to discussing physical activity in psychotherapy. As stated earlier, according to an early survey by Barrow and colleagues (1987), only 40% of psychotherapists reported routinely addressing exercise with clients. In reviewing clinical records of psychotherapists, McEntee and Halgin (1996) found that the word "exercise" was indicated in only 1.5% of the cases, suggesting that therapists may be over-reporting their practices of addressing exercise when completing survey research. Exercise has been found to be less frequently assessed than other health issues such as alcohol consumption, history of drug use, and family history of physical problems (Burks and Keeley, 1989). There appears to be quite a large number of psychotherapists who do not address physical activity in session. Inquiry into the barriers and enablers of exercise discussion may clarify some reasons behind therapists' decisions.

McEntee and Halgin (1996) asked therapists to list reasons why they would or would not discuss exercise in psychotherapy and these reasons were collapsed into groups. Most of the therapists in the study (82.7%) reported that they would address exercise to reduce levels of depression, anxiety, tension, stress, and anger and to increase feelings of relaxation (McEntee & Halgin, 1996). A number of therapists (37.3%) reported that they would discuss physical activity to enhance client perceptions of mastery and self-esteem. Another group (22.7%) indicated that they would discuss exercise if clients had physical health conditions or body image issues. Small numbers of psychotherapists reported that discussion

of exercise may be used to enhance the therapeutic relationship (9.1%) or to promote social interaction with others (9.1%). An undisclosed number of therapists suggested that the discussion of physical activity would likely depend on the clinical context (e.g., seeing more clients with medical conditions) (McEntee & Halgin, 1996). In Burks and Keeley's (1989) study, psychotherapists reported that they would recommend exercise to help combat depression and to help reduce anxiety and tension.

McEntee and Halgin (1996) also asked psychotherapists to provide reasons why they would be hesitant to discuss physical activity with their clients. Analysis of these data illustrated that many therapists reported that addressing exercise would be inappropriate for the psychotherapeutic context. It was felt that because psychotherapy is focused on psychological issues, physical, exercise-related issues are better dealt with by another type of professional. Another reason reported was that bringing up the topic may be perceived as too demanding, which may confuse the therapeutic relationship. Respondents were also concerned that clients would experience a sense of failure if they did not meet up to the therapist's expectations regarding exercise. Small groups reported that discussion of exercise may fuel client resistance or may be experienced as insensitive or demeaning by the client. A few therapists sampled reported that they were unfamiliar with different types of exercise, which made them less confident in addressing the topic (McEntee & Halgin, 1996). This last point is consistent with research illustrating that those with more personal experience with exercise are

more likely to discuss physical activity in session (McEntee & Halgin, 1996; Royak-Schaler and Feldman, 1984).

Directors of clinical psychology programs (who were also psychotherapists) were interviewed regarding possible barriers to exercise discussion in therapy (Faulkner &Biddle, 2001). They indicated that the discussion of physical activity in therapy would be inconsistent with certain approaches to counselling, such as nondirective psychodynamic orientations. They described that there were often divisions between different types of psychology such as "clinical psychology" and "health psychology" and that exercise may fit more within the domain of the latter. Other respondents reported barriers to be lack of awareness of the positive influences on mental health and the lack of randomized controlled trials compared to other therapies. Some participants reported that psychotherapists may perceive physical activity as being too simple, or not clever enough for psychotherapists to use – a form of "intellectual snobbery" (p. 44). They discussed that there could be incompatibility with discussion of physical activity in therapy and the traditional roles and values of therapists - it was described that exercise was tangential from the complex theories and interventions used in psychotherapy. Finally, a theme that came out of the data was the role of mind-body dualism. This involved psychotherapists treating the mind and body as separate issues, with exercise pertaining to the body rather than the mind. While the authors noted that all participants in the study denied this in their thinking, evidence of this dualistic tendency was alive in their responses. For example, one respondent reported, "I suspect it's [the body]

certainly not considered as much as it should be. The tradition is that we're psychologists and we deal with that" (Faulkner & Biddle, 2001, p. 440).

This notion of underlying mind-body dualism is one theme that runs through both Faulkner and Biddle (2001) and McEntee and Halgin's (1996) research. Faulkner and Biddle (2001) describe that while "lip service" is paid to holistic methods of therapy, there is still a practical adherence to conceptualizing therapy through a psychological, mind-focused lens. This is consistent with the barrier reported in McEntee and Halgin (1996) of the "perceived inappropriateness" (p. 55) of physical activity in psychotherapy. Their investigations led them to conclude that "many therapists do not see their work as pertaining to the body" (p. 55).

Mind-Body Dualism

When discussing dualism, we are reminded of the most prominent early modern supporter for this idea, Rene Descartes (1596-1650). He developed the idea that the mind and brain are separate – the brain is a part of the physical world and the mind a nonphysical entity (Simon, 2002). It has been argued that this mind-body dualism continues to exist within the biomedical model – the assumption that diseases and disorders are caused by physical problems (Engel, 1977). This assumes that doctors are in charge of fixing the body and psychotherapists are in charge of healing the mind or the soul (Groleger, 2007). The more recent biopsychosocial model is a more holistic approach assuming the body, mind, and environment are interdependent (Engel, 1977). This model is consistent with the notion that it is impossible to separate disorders that are of

physical nature and those that are of psychological nature, as each affects the functioning of the other to some degree (Engel, 1977; Gabbard, 1994).

Even with this more holistic approach to physical and mental health, it can be argued that mind-body dualistic attitudes continue to exist and influence medical and psychotherapeutic practice (Groleger, 2007; Miresco & Kirmayer, 2006). Miresco and Kirmayer examined dualistic attitudes in psychotherapists' reasoning about clinical scenarios. They had psychologists and psychiatrists read clinical case vignettes. These therapists rated the extent to which they perceived issues to be psychologically, biologically, or socially based. They also rated the level of intentionality, controllability, responsibility, and blame attributable to the patients in each of the vignettes. The biological ratings of etiology and the psychological ratings of etiology were significantly negatively correlated. It appeared that there were strong attitudes towards seeing the causes of the disorders as coming either from the mind or from the body. Whether the conditions were seen as psychological or biological determined the clinical attitudes toward the patients. For those disorders deemed more "psychological," there were more attributions of intentionality, controllability, responsibility, and blame on the patient. The inverse was true for those conditions rated more biologically based (Miresco & Kirmayer, 2006). This study illustrates that dualistic attitudes are evident in mental health and that these attitudes can have significant impact on a therapists' reasoning about clinical cases.

As discussed earlier, qualitative research has suggested that mind-body dualistic attitudes are one barrier to discussing exercise with a client during

psychotherapy (Faulkner & Biddle, 2001; McEntee & Halgin, 1996). Considering these qualitative accounts, it would make sense that those adhering to more dualistic attitudes would be less likely to discuss exercise in the therapy session. Up to this point, there have been no quantitative studies examining the presence of this proposed relationship. One aim of this study was to determine if there is a significant relationship between mind-body dualistic attitudes of psychotherapists and their likelihood of discussion of physical activity with clients.

Theoretical Orientation

Theoretical orientation is defined as, "an organized set of assumptions, which provides a counsellor with a theory-based framework for (a) generating hypotheses about a client's experience and behaviour, (b) formulating a rationale for specific treatment interventions, and (c) evaluating the ongoing therapeutic process (Poznanski & McLennan, 1995 p. 412). Theoretical orientations are underlying assumptions about human functioning which influence the therapy process. They are not to be confused with simply the preference for certain techniques or interventions (Poznaski & McLennan, 1995). The most common orientations are cognitive/behavioural, psychodynamic/psychoanalytic, humanistic/existential, multicultural, family systems, and feminist (Coleman, 2007; Poznaski & McLennan, 1995; Worthington, & Dillon, 2003). The social constructivist/narrative/solution-focused approach has also been gaining recognition as a distinct theoretical orientation (Cottone, 2007; Andrews & Clark, 1996).

Personal characteristics. A psychotherapist's choice of orientation is likely based on a complex interaction of influences, rather than solely due to the type of training program or supervision received (Poznaski & McLennan, 2003). Research illustrates that there are relationships between choice of theoretical orientation and personal characteristics such as personality, epistemological values, beliefs, and philosophy (Arthur, 2001; Poznaski & McLennan, 2003; Scandell, Wlazelek, & Scandell, 1997).

For example, therapists who ascribe to a cognitive/behavioural orientation have reported personality characteristics such as conventional, traditional, orderly, stable, realistic, extroverted, pragmatic, and empirical and tend to focus on the external rather than internal world (Arthur, 2001). As a group, cognitive/behavioural therapists tend to be lower in emotional expressivity, openness to experience, and flexibility, but higher in agreeableness, straightforwardness and altruism than therapists of other orientations (Ogunfowora & Drapeau, 2008; Poznanski & McLennan, 2003; Scandell, et al., 1997). The way they perceive and make sense of the world tends to be more objective rather than subjective and analytical rather than experiential (Poznanski & McLennan, 1995).

In contrast, psychodynamic/psychoanalytic therapists as a group tend to be more emotionally expressive and intuitive, to focus on ideas and imagination rather than facts, to be concerned with feelings and insight, and to be more holistic (Poznanski & McLennan, 2003; Arthur, 2001). They tend to view the world in an analytical rather than experiential manner and tend to view the world

more subjectively than therapists of a cognitive/behavioural orientation (Poznanski & McLennen, 1995). They also tend to focus more internally than externally (Arthur, 2001).

Like psychodynamic/psychoanalytic therapists, humanistic/existentialists tend focus on intuition (Poznanski & McLennan, 2003). Therapists ascribing to this orientation also tend to be spontaneous and attracted to self-exploration (Ogunfowora & Drapeau, 2008; Poznanski & McLennan, 2003). They tend to rate higher on personality measures of openness to experience, self-acceptance, and inner-directedness (Ogunfowora & Drapeau, 2008; Scandell et al., 1997). They are also similar to psychodynamic/psychoanalytic therapists in that their beliefs are more subjective, but in contrast to psychodynamic/psychoanalytic counsellors, they tend to view the world experientially rather than analytically (Pozankski & McLennan, 1995).

Systemic therapists tend to strongly believe in the role of family dynamics in influencing individual behaviour and experience. Systemic therapists are also more likely to have a role of caring for others at an early age (Poznaski & McLennan, 2003).

While research has focused on cognitive/behavioural, psychodynamic/psychoanalytic, and humanistic/existential approaches (and to a lesser extent systemic orientation), there has been limited research on the personality and epistemological traits relating to therapists of the other orientations.

Theoretical orientation in practice. There is overwhelming research demonstrating that positive outcomes in psychotherapy are not dependent on the choice of a certain theoretical orientation or use of specific techniques (Lambert, 1992; Miller, Duncan & Hubble, 2005). This perspective is buttressed by research demonstrating that other therapeutic aspects are effective in predicting positive outcomes. Lambert argues that only 15% of outcomes are attributable to specific techniques and interventions. Other factors such as individual client characteristics (40% of outcomes), expectancy effects (15%), and factors common to all types of therapy such as empathy and acceptance (30%) carry more weight than what intervention is chosen (Lambert, 1992).

Despite the lack of relationship with outcomes, research strongly suggests that one's orientation does greatly influence what happens during the therapy session. Those therapists who strongly agree with and believe in their chosen orientation will be more likely to experience therapeutic success (Norcross, 2005; Poznaski & McLennan, 1995). Poznanski and McLennan (1995) describe a therapist's theoretical orientation to be a, "significant 'input' variable that influences therapeutic activity and thus may potentially impact client change processes," (p. 415). A therapist's orientation will influence the goals and intentions of the therapy (Dirmaier, Karfst, Koch, & Schulz, 2006; Hill & O'Grady, 1985) as well as the choice of particular strategies and interventions used to reach these goals and to affect change for the client (Arthur, 2001; Bouchard, Lecomte, Carbonneau, & Lalonde, 1987; Minton and Myers, 2008; Stenzel & Ruper, 2004)

Goals and intentions. Theoretical orientation has been demonstrated to significantly influence the generation of particular goals of psychotherapy practice (Dirmaier, Harfst, Koch & Schulz, 2006). In interpreting discharge reports written by therapists of either psychodynamic or cognitive/behavioural orientations, psychodynamically-oriented therapists report more psychosocial goals relating to improvements in intra-psychic conflicts, self-worth, and motivation. Those from a cognitive/behavioural orientation prefer goals such as cognitive aspects of change, symptoms reduction, social competence, and stress management (Dirmaier et al., 2006).

Similar to this, Hill and O'Grady (1985) investigated the relationship between therapist intentions and theoretical orientation. They defined *intention* as "rationale for selecting a behaviour, response mode, technique, or intervention to use with a client at any given moment within the session" (p. 3). They found that these intentions, which guide therapists' choice for therapeutic practice, varied across therapeutic orientations. It was determined that therapists who were highly psychodynamic were much more likely to have the intention of focusing on feelings – on bringing clients to a deeper level of experiencing emotion through identifying, intensifying and facilitating acceptance of these feelings. These psychodynamic therapists were also more likely to have the intention to bring about insight in the session – to facilitate the understanding of unconscious material and how this is influences their thoughts, feelings and behaviours. These researchers found that the intention of focusing on feelings and insight was related

to specific actions within therapy: use of open questions, reflection, and interpretation (Hill & O'Grady, 1985).

Different intentions were also specific to the behavioural therapeutic orientation. The behavioural orientation was highly associated with building adaptive behaviours, cognitions and conceptualizations and helping the clients see themselves and situations in a different way. Those practicing from a behavioural orientation were also more likely to have the intention of setting limits, which included discussing the structure of the therapy session, setting goals, discussing the steps necessary to attain goals, and explicitly establishing parameters of the therapeutic relationship. Another intention highly associated with the behavioural orientation was reinforcing change. This entailed giving positive feedback about thoughts, behaviours, or affect to increase the probability of these changes being maintained and to encourage new risks and ways of behaving. These intentions of change, setting limits, and reinforcing change were associated with certain actions within the therapy session: direct guidance, teaching information, using closed questions, giving approvals, and using interpretations (Hill & O'Grady, 1985).

Strategies and interventions. Strategies and interventions used by psychotherapists vary depending on theoretical orientation. Numerous studies have compared and contrasted interventions between two or more theoretical orientations (Arthur, 2001; Bouchard et al., 1987; Castaneiras, Garcia, Lo Bianco, & Fernandez-Alvarez, 2006; Minton & Myers, 2008). As part of his literature review examining therapists' choices of orientation, Arthur discusses the results of three large-scale studies of the 1970s. He concludes that behaviourist therapists

are more active in therapy, more likely to give advice and value judgements, and more likely to control the conversation. Compared to this, those from a psychoanalytical orientation are less direct and less likely to control the conversation (Arthur, 2001). These findings are supported by a more recent study examining theoretical orientation (psychoanalytic, cognitive, or integrative) and the personal style of a therapist, "the set of characteristics that each therapist applies in every psychotherapeutic situation, shaping its basic attributes" (Castaneiras, et al., 2006, p. 596). Compared to psychoanalytic therapists, cognitive and integrative therapists are more directive and planned in their sessions – their actions are often purposefully directed to interventions. Cognitive and integrative therapists were also more likely to narrowly focus on the clients' issues and to report more closeness in their relationship with the client. In contrast to these styles, psychoanalytic therapists reported themselves to be more spontaneous, to have a broader focus, and to be more distant with their clients. No significant differences between the degree of rigidity or flexibility or the degree of commitment or engagement with the clients were found (Castaneiras et al., 2006).

Bouchard and colleagues (1987) examined the relationship between theoretical orientation and *inferential communications* (communication by therapist conveying a meaning beyond the immediately available information to increase self-exploration of understanding) (p. 277). These researchers analyzed the content of transcripts of expert therapists with self-described psychodynamic, behavioural, or gestalt orientations. They determined that forms of inferential communication varied depending on one's orientation. Psychodynamically-

oriented therapists were more likely to use direct opinions, such as interpretations, than cognitive behavioural or gestalt therapists and were more likely to use invitations to explore and discuss the client's experience. Behavioural therapists were the least of the three likely to attempt to increase awareness of the client's experience at subconscious levels. Gestalt therapists were most likely to "probe [the] immediate experience" (p. 282) of the client – communicating with the client in a way to impact self-exploration or self-understanding by focusing on the immediate experience within the therapy session (Bouchard, et al., 1987). This study provides further support to the notion that theoretical orientation influences the way in which a therapist communicates to impact change in a client.

Minton and Myers (2008) also found a link between the use of interventions and theoretical orientation. These researchers examined the relationship between therapists' cognitive style (i.e., preferred method of thinking in relation to particular presenting issue), their orientation, and their intervention strategies. Each of the cognitive styles also significantly predicted the corresponding intervention style use. Psychoanalytic and humanistic therapists were more likely to be interested in and use strategies related to a "formal" cognitive style, which involves thinking abstractly and reflecting on patterns, feelings, and experiences (p. 337). Those with a humanistic orientation were more likely to prefer and use a "sensorimotor" style which involves focusing on bodily sensations and on the immediate experience (p. 332). A "concrete" cognitive style was the preference for those with cognitive/behavioural orientations (p. 337). These therapists were more likely to focus on logical thought processes,

understanding cause and effect relationships, situational descriptions, and details of events with little analysis or reflection. Those adhering to family systems, feminist, and multicultural perspectives were more likely to have a "postformal" or "dialectic" preferred style and use of interventions (p. 332). They focused on patterns of thought and emotion within a system and were likely to see multiple perspectives as valid interpretations of reality. They were also likely to examine the role of systems in constructing these multiple realities and to work to translate these realities into action. Overall, this study provides further evidence to demonstrate that the personal approach of therapists influences their choice of interventions.

In addition to influencing goals and interventions, theoretical orientation can affect the conceptualization and diagnosis of clients (Little & Hamby, 1996). One study examined the relationship between theoretical orientation and clinical practices involving clients with histories of childhood sexual abuse (Little & Hamby, 1996). These researchers found that those with primarily a psychodynamic orientation were more likely to diagnose individuals with a personality disorder. Therapists with a feminist orientation were least likely to diagnose clients with a personality disorder and were more likely to diagnose them with post-traumatic stress disorder. Feminist therapists were also more likely to share their histories of sexual abuse with the client. Psychodynamic therapists reported themselves less likely to encourage only the expression of negative feelings toward the offender of sexual abuse as well as less likely to find themselves "rescuing" the client (p. 621).

Theoretical orientation also influences attitudes toward therapeutic techniques and use of these specific interventions. For example, those with a psychodynamic/psychoanalytical orientation are less likely to use touch in therapy, while humanistic therapists are most likely to use touch with their clients, both as an expression of the relationship and as a socially stereotyped behaviour (e.g., the use of a handshake). Other orientations have been rated somewhere between these two regarding touch with clients (Stenzel & Ruper, 2004). Theoretical orientation has also been linked to concerns about using outcome measures, with insight-oriented psychodynamic, humanistic/existential, and family systems therapists least likely to view outcome measures as helpful (Hatfield & Ogles, 2007). Furthermore, those with a cognitive/behavioural orientation are more likely to use homework with clients (Kazantzis, Busch, Ronan, & Merrick, 2007) and to prefer and provide briefer therapy (Levenson & Davidovitz, 2000).

Not all studies have found relationships between theoretical orientation and practices. Witteman and Koele (1999) had therapists read case descriptions of clients and then answer questions regarding interventions they would recommend for these clients. They found that theoretical background was only slightly related to the treatment method these therapists proposed. These results differ from other research illustrating that theoretical orientation corresponds to treatment intentions and decisions. In this study, the weak relationship may have been due to measurement of theoretical orientation. Participants were asked to provide the background of their training program rather than to report their personal

orientation. This may provide further evidence toward the notion that a person's personal choice of theoretical orientation is more important in informing their practice than one's previous training model.

In reviewing the literature on theoretical orientation and intentions, conceptualizations, and interventions, it can be noted that much of the research has focused on psychodynamic/psychoanalytic or cognitive/behavioural approaches (Arthur, 2001; Castaneiras, et al., 2006; Dirmaier, et al., 2006; Hill & O'Grady, 1985). There are a few additional studies that examine humanistic/existential or systemic orientations (Bouchard, et al., 1987; Hatfield & Ogles, 2007; Stenzel & Ruper, 2004). Even less research has been conducted for multicultural, feminist and constructivist approaches (Little & Hamby, 1996; Minton & Myers, 2008). This paucity of research may be due to inconsistencies in the measurement of theoretical orientation. In many of the studies, participants were to choose only one orientation (Bouchard et al., 1987; Castanerias et al., 2006; Little & Hamby, 1996; Stenzel & Rupert, 2004). A limitation of this approach is that while many therapists may adhere to a cognitive or psychodynamic approach, they may also value elements of other orientations, such as feminist or multicultural. These elements are not able to be measured if therapists are to only choose their "primary" orientation. A more detailed discussion regarding theoretical orientation measurement is to follow.

Theoretical orientation and physical activity. A great deal of evidence suggests that theoretical orientation influences therapeutic practices. From this, it can be inferred that one's theoretical approach may influence the likelihood of

discussing physical activity with a client. Based on the nature of the cognitive/behavioural orientation, it could be expected that those practicing from this approach may be more likely to discuss exercise with a client. As discussed earlier, cognitive/behavioural therapists are generally more directive and planned in their approach and tend to have narrower focus (Arthur, 2001; Castaneiras, et al., 2006). They are likely to focus on cause and effect relationships, symptom reduction, stress management, building adaptive behaviours, homework, and setting concrete goals and steps to obtain these goals (Dirmaier et al., 2006; Hill & O'Grady, 1985; Kazantzis et al., 2007; Minton & Myers 2008). Addressing exercise in therapy would be congruent with these elements. In contrast, one can assume that that those attributes inherent to psychoanalytic and psychodynamic orientations would be incompatible with discussing exercise in therapy. Psychodynamic/psychoanalytic therapists tend to be much less direct and to focus on unconscious material and insights (Arthur, 2001; Hill & OGrady, 1985). Some therapists have reported believing that discussing exercise in therapy would be too directive (McEntee & Halgin, 1996). Within a psychodynamic/psychoanalytic framework, addressing the issue of physical activity may lead to complications concerning transference and countertransference issues (McEntee & Halgin, 1996). In sum, it would make sense that those with a cognitive behavioural orientation would be most likely to discuss exercise with a client. Those with a psychodynamic orientation would be least likely.

There have been few studies examining this relationship, and the findings have been mixed (Barrow et al., 1987; McEntee & Halgin, 1996). Barrow and

colleagues found a relationship between theoretical orientation and the practice of recommending exercise to clients. They found that therapists with cognitive, cognitive/behavioural, and humanistic/existential orientations were more likely to suggest exercise than those with psychodynamic/psychoanalytic orientations. McEntee and Halgin (1996) also studied this relationship by providing a case vignette and having psychotherapists rate their likelihood of discussing exercise with this client. In contrast to the findings of Barrow and colleagues (1987), no significant relationship between theoretical orientation and discussion of physical activity was found. The inconsistencies between these studies may have been due to different ways of measuring theoretical orientation.

Measuring theoretical orientation. Assessing theoretical orientation is a tricky issue, as many psychotherapists do not ascribe to a single orientation (Lambert, 1992; Norcross, 2005; Poznanski & McLennan, 1995). Therapists often describe themselves to be *eclectic*, which involves pulling techniques from various theoretical schools to suit the need of their client, or *integrationist*, which moves beyond techniques to blending conceptual and theoretical elements (Lambert, 1992; Norcross, 2005). Integrationism is now the most commonly reported orientation; between one quarter and one half of practicing psychologists report themselves to adhere to an eclectic or integrationist model rather than to choose one orientation from which to practice (Norcross, 2005). Eclecticism is popular among the various types of psychotherapists such as psychologists, psychiatrists, social workers, and marriage and family therapists (Garfield, 1994; Jensen, Bergin, & Greaves, 1990). Despite the popularity of eclecticism, there is a

great deal of diversity between therapists in the degree to which they practice and adhere to each orientation (Garfield, 1994; Jensen et al., 1990; Norcross, Karpiak, & Lister, 2005; Norcross & Goldfried, 2005). In analysis of a survey investigating eclecticism, Jensen and colleagues concluded that "to equate one's eclectic therapy style with another's is inappropriate" (p. 129). This diversity within the eclectic or integrationist label can pose a problem for research. Many studies simply ask individuals to choose a single theoretical orientation (Poznaski & McLennan, 1995). For example, McEntee and Halgin's (1996) research on therapeutic orientation and physical activity discussion simply asked participants to report their primary orientation. Almost one third of participants described themselves as eclectic or integrationist. When so many choose eclectic as a primary approach, this eliminates the heterogeneity of actual orientations, as the degree to which psychotherapists ascribe to each orientation varies across individuals (Poznaski & McLennan, 1995; Hill & O'Grady, 1985). As discussed earlier, it is evident in the literature that most often the 'big three' orientations – psychodynamic/psychoanalytic, cognitive/behavioural, and humanistic/existential are studied and reported (Arthur, 2001; Bouchard, et al, 1987; Castaneiras, et al., 2006; Dirmaier, et al., 2006; Hatfield & Ogles, 2007; Stenzel & Ruper, 2004). This may be due to the prevalence of self-ascription into one broad category, or to choosing the label of eclectic. Even though a therapist may work within these domains, he or she may also adhere to elements of other orientations (e.g., feminist or multicultural). In only choosing one orientation, these important elements would be overlooked.

Because therapists often do not ascribe to one orientation, Hill and O'Grady (1985) suggest it is more appropriate to have respondents rate themselves on various theoretical dimensions. This multidimensional description of theoretical orientation where relative adherence to different orientations can be observed would allow for a more accurate measure of a therapist's orientation. In their study, Hill and O'Grady (1985) had therapists rate on a Likert scale between 1 to 5 the degree to which they believed in and adhered to the techniques in each orientation. When using this method, only 10% of therapists ascribed to a single orientation of psychoanalytic, behavioural, or humanistic (i.e., rating their preferred approach at a 4 or 5 and other orientations at a 1 or 2). It is clear that when provided with a choice to indicate relative adherence to each dimension, a great deal of variation is found between individuals. These results strongly illustrate the importance of measuring an individual's adherence to various orientations.

This issue of measurement is likely evident in studies examining theoretical orientation and discussion of physical activity in session. In McEntee and Halgin's (1996) study, therapists were asked to simply list their "primary orientation" (p. 51). Of these therapists, 33.6% self-ascribed as psychodynamic/psychoanalytical, 29.1% as cognitive/behavioural, 22.7% as eclectic, 5.5% as "other orientation" such as feminist, family systems, Gestalt, or Rogerian, 6.4% as an integrative approach of "eclectic/psychodynamic/analytic," and 1.8% as "eclectic/cognitive/behavioural" (p. 51). These researchers hypothesized that theoretical orientation would be related to the likelihood of

discussing exercise in therapy; however, no relationship between these variables was found. They attributed this lack of findings to the therapists "moving toward an eclectic or integrative model" (p. 56). Barrow and others (1987) also assessed this relationship. They reported that their research included a survey question asking therapists about their orientation: cognitive, cognitive/behavioural, psychoanalytic, psychodynamic, humanistic/existential, behavioural, Gestalt, family systems, or other. They did not present frequencies of these data, and it is unclear how exactly they asked therapists to provide their orientation. These researchers' results revealed that those ascribing to a cognitive, cognitive/behavioural, or humanistic/existential orientation were more likely to make recommendations to clients to participate in exercise than psychoanalytic or psychodynamic therapists (Barrow et al., 1987).

These differences in results may be due to inconsistent and weak measurements of theoretical orientation. McEntee and Halgin (1996) asked for self-description, and Barrow and colleagues (1987) seemed to ask therapists to choose one orientation out of a list provided. It is clear that further clarification of this relationship is needed. A goal of the present study was to use a more comprehensive and accurate measure of therapeutic orientation to examine the role of theoretical orientation in exercise discussion in psychotherapy. This took into account the frequency and diversity of eclectic and integrative therapists by having therapists rate their degree of adherence to various orientations, similar to Hill and O'Grady's (1985) research.

Rationale

When reviewing the research, it is apparent that physical activity is influential in improving mental health (e.g., Babyak et al., 2000; Landers & Arent, 2008; Long & van Stavel, 1995; Paluska & Schwenk, 2000; Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1991; Strathopoulo et al., 2006; Wipfli, Rethorst, & Landers, 2008). While exercise has been suggested to be a safe and cost-effective adjunct to other types of psychotherapy (Hays, 1999; Moore & Adams, 2008), many therapists do not consistently raise the issue of physical activity with their clients (Barrow, English, & Pinkerton, 1987; Burks & Keeley, 1989; McEntee & Halgin, 1996). The purpose of this study was to better understand what makes therapists more or less likely to broach this topic in therapy sessions. Once these factors are better understood, steps can be taken to combat barriers to addressing physical activity in psychotherapy.

It is apparent that much of the research examining psychotherapeutic exercise discussion is from a number of years ago. As such, the first goal of the current study was to obtain a current estimate of psychotherapists' tendencies to address exercise with their clients. These results were compared and contrasted with the results from McEntee and Halgin (1996).

Theoretical orientation is a factor that strongly influences a therapist's choice of interventions in psychotherapy (e.g., Arthur, 2001; Castaneiras et al., 2006; Dirmaier et al., 2006; Hill & O'Grady, 1985; Minton & Myers, 2008). From this, it can be inferred that one's theoretical approach would influence the likelihood one will address exercise with clients. This has been studied by a

limited number of researchers and the results have been mixed (Barrow et al., 1987; McEntee & Halgin, 1996). These inconsistencies are likely due to participants being asked to fit their orientation into one category, which does not allow for measurement of the variations within the eclectic and integrationist approaches (Hill & O'Grady, 1985). Thus, the second goal of the study was to further investigate the relationship between theoretical orientation and psychotherapeutic exercise discussion by allowing therapists to rate their degree of adherence to each orientation. It was predicted that those adhering to a more direct, objective cognitive/behavioural approach would be more likely to address exercise in therapy and those adhering to a more indirect, insight-focused psychodynamic/psychoanalytic approach would be less likely to raise the topic. As there has been limited research focusing on other approaches, the relationship between exercise discussion and the orientations of humanistic/existential, family systems, multicultural, feminist, and constructivist/narrative/solution-focused were investigated in an exploratory manner.

Mind-body dualism attitudes are one proposed barrier to discussing exercise in therapy (Faulkner and Biddle, 2001; McEntee and Halgin, 1996). While many psychotherapists deny this dualistic tendency, it has been demonstrated that these beliefs implicitly influence clinical decision-making (Miresco & Kirmayer, 2006). Qualitative research has demonstrated potential links between mind-body dualism and psychotherapeutic exercise discussion; however, no quantitative research has been conducted to test this hypothesis. Therefore, the last goal of the study was to quantitatively examine the relationship

between mind-body dualism and tendencies toward addressing physical activity in psychotherapy.

Hypotheses

Based on this rationale, the following hypotheses were generated:

1. That a cognitive/behavioural orientation would positively correlate with discussion of exercise in psychotherapy.
2. That a psychodynamic orientation would negatively correlate with discussion of exercise in psychotherapy.
3. That more dualistic mind-body attitudes would negatively correlate with discussion of exercise in psychotherapy.

Chapter 3: Method

Participants

Participants in this study were self-identified psychotherapists. They were recruited in two ways. First, an online survey methodology was employed. Written invitations to participate were sent out to list-serv administrators of the Clinical and Counselling Psychology sections of the Canadian Psychological Association. The administrators were asked to forward the invitation to section members. The second method of recruitment was in person at a large, international psychotherapy conference in Anaheim, California. Those who approached the researcher's booth were invited to complete a survey involving psychotherapy and exercise.

Eleven participants completed the online survey. One hundred and fifteen psychotherapists at the conference were given the questionnaire. Two participants who started the questionnaire decided not to complete the survey. Six additional surveys were not included in the analysis, as five were students with no psychotherapy experience and one participant was not a psychotherapist. In total, 107 surveys from the conference were included in the data analysis, thus 118 surveys were analyzed in total.

Participants ranged in age between 26 and 77 years old, (M=48.15, SD=11.31) and had been practicing psychotherapy for an average of 13.85 (SD=9.84) years, ranging from 1 year to 48 years of experience. Seventy-eight percent of the participants were female and 22% were male. The majority of the therapists were psychologists who comprised 27.1% of the sample, followed by

counsellors and social workers who each made up 13.6% of the sample, and psychiatrists who were 5.9% of the sample. Twenty-eight percent of participants reported a profession of "other". Within this "other" category, 16 people indicated that they were licensed marriage and family therapists (13.6% of the total sample), four people indicated they were students (4% of total sample), and eight people indicated various other professions (6.8% of sample). Fourteen participants (11.9%) did not indicate a profession. With regard to highest education obtained, 66.1% completed master's degrees, 30.5% doctoral degrees, 1.7% bachelor's degrees, and 1.7% "other" degrees. The most common primary therapy setting was private practice (40.6%), followed by hospital (13.5%), public mental health clinic (13.6%), and educational institution (10.1%). There were 10.1% of participants who indicated "other" as a primary psychotherapy setting and 16.1% of participants who chose not to indicate a psychotherapy setting. The total value of primary therapy settings is greater than 100% as some participants indicated more than one.

One-way Analysis of Variance (ANOVA) was performed to determine if there were any differences between the participants recruited online and at the conference. There were no significant differences noted between the samples with the exception of the "profession" variable, $F(1,97) = 5.98$, $p < 0.05$. These results are expected, as therapists recruited at the conference were a mix of professionals, while all therapists recruited online were solely psychologists.

Instruments

Participants completed a short questionnaire with questions asking about theoretical orientation, the likelihood they would address the topic of physical activity in therapy, and their beliefs regarding mind-body dualism. The length of the survey was purposely kept short to facilitate completion rate. A copy of the questionnaire is available in Appendix A.

Theoretical orientation. Theoretical orientation was measured with a question asking participants to rate the degree to which they practice from a list of orientations. Orientations listed included: psychoanalytic/psychodynamic, cognitive/behavioural, humanistic/existential, family systems, multicultural, feminist, and constructivist/narrative/solution-focused. Participants rated their degree of practice for each orientation on a five-point Likert scale with anchors "not at all" and "very much."

This measure is similar to the multidimensional assessment of theoretical orientation used by Hill & O'Grady (1985). In addition to the behavioural, psychoanalytic and humanistic orientations measured in their research, the present study added orientations of family systems, multicultural, feminist, and constructivist/narrative/solution-focused. The goal was to assess a broad range of orientations and these additional approaches have been cited as separate and important theoretical orientations for psychotherapy (Cottone, 2007; Truscott, 2010; Worthington & Dillon, 2003).

Discussion of physical activity. Participants were provided with a brief clinical case vignette adapted from McEntee and Halgin (1996) describing a client with issues the literature has suggested to be most benefited by physical activity:

> A 30-year-old client comes to you seeking psychotherapy. The client complains of feelings of low self-esteem, mild depression, mild anxiety, and moderate levels of stress. The client is apparently in good physical health and of average weight (p. 51).

The same wording as McEntee and Halgin's study was used with the exception of changing "professional psychological help" to "psychotherapy" to make it inclusive to all psychotherapists. Participants were asked to rate on a Likert scale from 1-7 with anchors of, "not likely at all" and "extremely likely," the degree that they would address exercise with this client, with higher scores indicating greater likelihood. They were provided with the definition of exercise as being "a continuous activity involving large muscle groups, aerobic in nature, and performed for at least 20 minutes at one time," consistent with the study by McEntee and Halgin (1996, p. 51). The question assessing exercise discussion was kept as similar as possible to McEntee and Halgin's research to allow comparisons with this study.

Mind-body dualism. Participants were asked to rate the extent they agreed with six statements regarding mind-body dualism. They rated these items on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." Four of the items (items 1-4) were taken from Dermertzi and colleagues' (2009) study examining mind-body dualism, where satisfactory internal consistency

among the items was determined. To supplement these questions, two additional items (items 5 and 6) were included that were adapted from the works of Simon (2002) and Green and Palmer (2005). Higher scores on this measure represent more dualistic attitudes. Table 1 displays correlations between the items.

Table 1

Spearman's Correlations between Mind-Body Dualism Items

	Item	1	2	3	4	5	6	total	2,3,4
1.	The mind and brain are two separate things	1	.040	.100	.097	.105	.045	.423**	.100
2.	The mind is fundamentally physical		1	.291**	.306**	-.075	-.001	.454**	.603**
3.	Some spirit survives after death			1	.603**	.023	-.055	.665**	.847**
4.	Each of us has a soul that is separate from the body				1	.038	.050	.725**	.834**
5.	Behaving rationally requires a struggle against our nature					1	.151	.369**	-.022
6.	The body is inhabited and governed by the mind						1	.314**	-.010
Total of all items								1	.791**
Total of items 2, 3, 4									1

Note. Item 2 was reverse-scored for every item and total shown.

n=114

*p<0.05. **p<0.01.

The items were correlated using Spearman's rho. Weak correlations were found between the items. As such, items 2, 3, and 4 were combined as they correlated most highly together. Because of these low correlations, in addition to the totals, the individual items were analysed with other variables.

In order to assess the internal consistency of the scale, Chronbach's alpha was calculated. The reliability coefficient was α=. 437, which denotes weak internal consistency (Chronbach, 1951). In general, the psychometric properties of this measure appear poor, so this scale should be interpreted with caution.

Procedure

Participants were invited to participate online or in person at a psychotherapy conference. For those recruited online, the questionnaire (Appendix A) and the informed consent form (Appendix B) were uploaded onto a secure web server. The email (Appendix C) contained a link to this information and respondents clicked "Next" to consent to the research. To recruit participants at the conference, an exhibitor booth was set up and individuals who approached the exhibit were verbally invited to participate. The booth was equipped with a verbally neutral sign reading "Psychotherapy Interventions" so as not to create bias as to the type of participant to approach the exhibit. To improve response rate and completion rate, participants were invited to provide their name, email address and phone number to participate in an optional lottery for a signed copy of a popular psychotherapy book. Information describing informed consent and study information was described at the top of the survey (Appendix D) and an information form with contact information was also available (Appendix E).

Participants consented to the research by completing the survey and placing it in an available locked box. Each participant was assured that no identifying information be included with their responses. All questionnaires were assigned a research number for identification purposes and all hard copies of questionnaires remained in the locked box.

Statistical Analysis

Data were compiled and analysed using SPSS 17.0. All comparisons were planned to answer the research questions. To get a sense of current levels of exercise discussion in psychotherapy, frequencies of exercise discussion were calculated. The difference between these results and those reported by McEntee and Halgin (1996) was calculated. To examine whether theoretical orientation and likelihood of discussing exercise were related, correlations between exercise discussion and each orientation were computed. Correlations between the mind-body dualism items, and totals between the mind-body dualism scores and exercise discussion were calculated to determine whether there was a relationship between mind-body dualism and likelihood of discussing physical activity in therapy. Because each of the factors was measured on a single Likert scale, the more conservative Spearman's rho was used for the calculation of correlations. For analysis, a cut-off of $p<0.05$ was chosen for the level of significance, as to balance the effects of Type 1 and Type II error.

Chapter 4: Results

Missing data were dealt with in a number of ways. With regard to theoretical orientations, three participants left every field blank. In addition to this, there were 5 missing values for the psychoanalytic/psychodynamic field, 3 for cognitive/behavioural, 5 for humanistic/existential, 9 for family systems, 10 for multicultural, and 7 for feminist. In missing fields (excluding the three cases leaving every orientation field blank), it was assumed that the therapist did not practice from this orientation, so data of "Not at all" was imputed. Only three cases contained one or more missing data points on the dualism questions and one participant did not complete the exercise discussion question. In these remaining analyses, as there were very few missing values, there is a high chance that complete cases accurately represent the population of interest; therefore listwise deletion of missing values was used (Pigott, 2001).

Theoretical Orientation and Exercise Discussion

The means, standard deviations, and possible range of values were calculated for the variable of exercise discussion as well as each of the theoretical orientations. These descriptive statistics are shown in Table 2.

Table 2

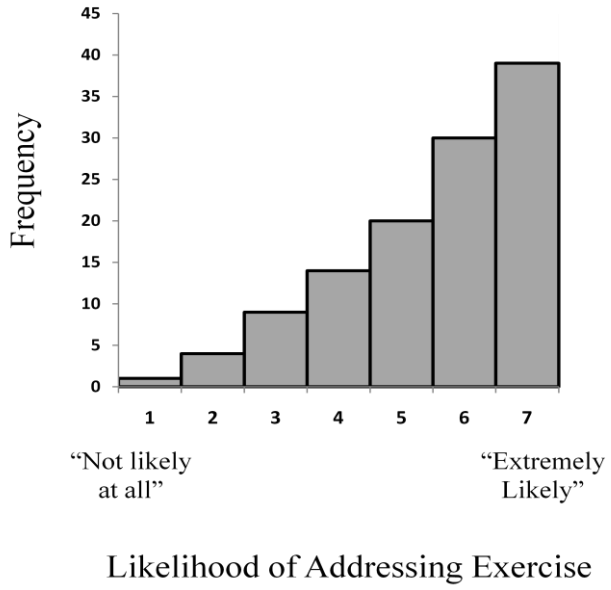
Descriptive Statistics for Exercise Discussion and Theoretical Orientations.

Measure	N	M	Median	SD	Possible Range of Values
Exercise discussion	117	5.51	6.00	1.489	1 to 7
Theoretical Orientation					
Psychoanalytic/Psychodynamic	115	2.89	3.00	1.227	1 to 5
Cognitive/Behavioural	115	4.06	4.00	0.949	1 to 5
Humanistic/Existential	115	3.49	4.00	1.252	1 to 5
Family Systems	115	3.14	3.00	1.310	1 to 5
Multicultural	115	3.30	3.00	1.352	1 to 5
Feminist	115	2.68	3.00	1.348	1 to 5
Constructivist/Narrative/Solution-Focused	115	3.22	2.00	1.276	1 to 5

Note: n = number of participants; M = mean; SD = standard deviation.

Figure 1

Histogram of Exercise Discussion



Frequency of addressing exercise. In examining Figure 1 and the data in Table 2, it is apparent that the majority of psychotherapists indicated that they would be likely to address exercise with the client in the case vignette. One third of respondents indicated the modal value 7, indicating that many therapists reported to be "extremely likely" to address exercise. Only one participant (0.9% of the sample) indicated that they would be "not likely at all" to discuss exercise with the client. The majority of the sample (76%) rated themselves to be likely to discuss physical therapy (ratings of 5-7) and 24% of participants indicated themselves to be unlikely to address exercise or to be neutral (ratings between 1-4).

An analysis was carried out to determine if these results were similar to those found by McEntee and Halgin (1996). In their study, these researchers received results of M=4.67, SD=1.88, n=110 with a modal value of 6. This was compared to the results of the present study (M=5.51, SD= 1.49, n=117). An independent-measure t-test, $t(255) = 3.74$, $p < 0.001$), two-tailed, demonstrated statistically significant difference between the results of exercise discussion reported by McEntee and Halgin and the results found in the current study. To evaluate the absolute size of this difference, independent of the sample size, the effect size was calculated using Cohen's *d* (Cohen, 1988). This calculation resulted in Cohen's $d = .499$, which indicates a medium effect. These results indicate that the current sample was significantly more likely to report discussing exercise in the clinical vignette than McEntee and Halgin's sample.

As McKentee and Halgin's (1996) sample was composed of only psychologists, the analyses were repeated comparing exercise discussion with the psychologists in the current study (M=5.84, SD=1.1.44, n=32). An independent-measure t-test, $t(140)=3.25$, $p<0.01$, two-tailed, also demonstrated statistically significant difference between the results of exercise discussion between the samples of psychologists, with Cohen's d=.699, also indicating a medium effect size (Cohen, 1988). These results are consistent with those of the overall sample; the psychologists in the present study were also significantly more likely to discuss exercise than those in McEntee and Halgin's sample.

Relationship between theoretical orientation and exercise discussion. To test the next hypothesis, correlations were computed between each of the theoretical orientations and with exercise discussion. Because the results of the measures of exercise discussion and each of the theoretical orientations were based on only one Likert scale, and because many of the items were not normally distributed, the more conservative Spearman's rho was used for this calculation. The results are provided in Table 3.

Table 3

Spearman's Correlations between Exercise Discussion and Theoretical Orientation

Theoretical Orientation	Exercise Discussion
Psychoanalytic/Psychodynamic	-.061
Cognitive/Behavioural	.121
Humanistic/Existential	.244**
Family Systems	.146
Multicultural	.140
Feminist	.096
Constructivist/Narrative/Solution-Focused	.239*

Note. n=114

*p<0.05. **p<0.01.

Table 3 shows that exercise discussion was significantly associated with certain therapeutic orientations. Specifically, exercise discussion was positively correlated with the humanistic/existential orientation (r =.244, p=0.002) and positively correlated with the constructivist/narrative/solution-focused orientation (r = .238, p=.010). No other significant correlations were found. The hypothesis that cognitive/behavioural orientation would be positively correlated with exercise discussion was not supported.

The hypothesis predicting that psychoanalytic/psychodynamic orientation would be negatively correlated with exercise discussion was also not supported. While the psychoanalytic/psychodynamic variable was the only factor negatively correlated with exercise discussion, the results were not statistically significant.

Mind-Body Dualism and Exercise Discussion

To determine the relationship between mind-body dualism attitudes and the likelihood of exercise discussion in psychotherapy, correlations were computed between the total mind-body dualism scale, as well as the totals of items 2, 3, and 4 and each of the individual items. As discussed above, these additional analyses were conducted because of low correlations between items leading to poor psychometric properties of the measure. Due to the items being measured on a single Likert scale, the more conservative Spearman rho was used. The results are provided in Table 4.

Table 4

Spearman's Correlations between Exercise Discussion and Mind-Body Dualism Attitudes

	Mind-Body Dualism Measures	Exercise Discussion
1.	The mind and brain are two separate things	-.140
2.	The mind is fundamentally physical	-.108
3.	Some spirit survives after death	.164
4.	Each of us has a soul that is separate from the body	.000
5.	Behaving rationally requires a struggle against our nature	-.157
6.	The body is inhabited and governed by the mind	-.067
	Total of 2,3,4	.116
	Total	-.016

Note. Item 2 was reverse-scored

n=114

*p<0.05

The hypothesis that mind-body dualism attitudes would be negatively correlated with exercise discussion was not supported. Neither the total of the dualism items nor the total of items 2, 3 and 4 correlated significantly with exercise discussion. With regard to individual items, no items were significantly correlated with exercise discussion.

Chapter 5: Discussion

The objectives of this study were to examine the likelihood therapists would address physical activity in psychotherapy and to examine possible factors related to this exercise discussion. It was predicted that one's theoretical orientation would influence whether a therapist would address exercise with a client in a clinical case vignette. It was also predicted that personal attitudes regarding mind-body dualism would be linked with a therapist's tendency to discuss physical activity. While most psychotherapists indicated that they would address exercise with the client, these predicted relationships were not supported.

Addressing Physical Activity in Psychotherapy

The first goal of the study was to obtain updated information regarding therapists' tendencies to address physical activity in session. The majority of therapists were likely to discuss exercise with the client described in the case vignette. These results are in contrast to earlier research concluding that addressing physical activity in therapy is uncommon (Barrow et al., 1987; Burks and Keeley, 1989).

To facilitate comparison with previous research, the present study utilized the same method as McEntee and Halgin (1996) to assess exercise discussion. Results demonstrated that psychotherapists sampled in the present study were significantly more likely to address exercise with the client in the case vignette than those respondents in McEntee and Halgin's study. While the full range of data for McEntee and Halgin's research is unknown, and while there are numerous unknown factors that may be influential, these results may suggest that

therapists are more frequently discussing exercise with their clients than they were nearly fifteen years ago.

Exercise Discussion and Theoretical Orientation

It was predicted that certain theoretical orientations would be correlated with the likelihood a therapist would address physical exercise with a client in a case vignette. Specifically, it was hypothesized that exercise discussion would correlate positively with a cognitive/behavioural orientation and negatively with a psychoanalytic/psychodynamic orientation. Contrary to what was expected, no significant associations were found between these variables. However, exercise discussion was associated with the humanistic/existential orientation and the constructivist/narrative/solution-focused orientation.

Similar to the current findings, McEntee and Halgin (1996) found no significant relationships between theoretical orientation and physical activity discussion in therapy. These researchers determined that the results were likely due to the popularity of eclectic approaches. The goal of the current study was to determine whether theoretical orientation would correlate with likelihood of exercise discussion when controlling for the issue of eclecticism by allowing therapists to rate the extent they practice from each orientation rather than being confined to choose a single category in which to fit their therapeutic approach. Due to the planned, directive nature of the cognitive/behavioural orientation and the focus on concrete goals and behaviours in this approach (Arthur, 2001; Castaneiras, et al., 2006; Kazantzis et al., 2007; Minton & Myers 2008), it was predicted that those adhering to a cognitive/behavioural orientation would be

more likely to discuss exercise with their clients. Also, due to the less direct nature of psychoanalytic/psychodynamic therapists and their tendency focus on unconscious material and insights (Arthur, 2001; Hill & O'Grady, 1985), it was predicted that therapists practicing from this orientation would be less likely to discuss exercise with the client in the case vignette. Even using this multidimensional measure of theoretical orientation, no relationships between exercise discussion and cognitive/behavioural or psychoanalytic/psychodynamic orientations were found. These results are in contrast to the research of Barrow and others (1987), who found that therapists with cognitive and cognitive/behavioural orientations were more likely to recommend exercise to their clients than those with psychoanalytic/psychodynamic orientations.

Part of the reason for the discrepancy between the findings of the current study and those of Barrow and colleagues (1987) may have been due to the way in which the question was posed. Barrow and colleagues asked participants to rate the frequency with which they would "recommend" physical activity to clients (p. 67). The present study used similar wording to McEntee and Halgin's (1996) study, asking respondents the likelihood they would "address" the issue of exercise with the client (p. 51). The present study may have had similar results to McEntee and Halgin rather than Barrow and colleagues due to this wording. The word *recommend* is more directive and implies that exercise is suggested by the therapist, consistent with the directive cognitive/behavioural approach (and inconsistent with the psychoanalytic/psychodynamic approach). On the other hand, the word *address* is more ambiguous – respondents could assume this to

mean that the topic is raised by either the client or the therapist, as it carries less of an instructional quality.

The results of the current study are partially consistent with those of Barrow and colleagues (1987) in that both demonstrated a positive relationship between exercise discussion and humanistic/existential approaches. This relationship may be due to the holistic nature of humanistic/existential therapy (Poznanski & McLennan, 2003, Truscott, 2010). A large domain within this orientation is Gestalt therapy which is based on the assumption that it is not possible to reduce a human being to the sum of his or her elements (Woldt & Toman, 2005). According to this view, all parts in the physical, environmental, and psychological being are interconnected and awareness of the contact between these are essential to therapy. Gestalt therapy involves tapping into the body and becoming aware of one's sensory and physiological experiences (Woldt & Toman, 2005). This orientation is consistent with the holistic nature of utilizing exercise to positively impact psychological wellbeing. As such, the positive correlation between the humanistic/existential orientation and psychotherapeutic exercise discussion correspond with the holistic qualities of the approach.

An additional relationship that has not been knowingly examined or found in the literature was also discovered in the current study: those practicing from constructivist/narrative/solution-focused orientations were significantly more likely to address exercise with the client in the case vignette. The links between the humanistic and constructivist approaches and discussion of physical activity suggest that those psychotherapists who discuss exercise with their clients may

have a greater openness to different techniques during therapy. Poznaski and McLennan (2003) found that highly experiential and humanistic therapists were more likely to be eclectic in their choice of therapeutic interventions, compared to cognitive/behavioural and psychodynamic therapists who were more likely to strictly adhere to strategies falling within their respective approaches. It can be assumed that more humanistic, client-centered therapists likely go in the direction of conversation as initiated by the client. If the client decided to discuss the topic of exercise, the therapist would be more likely to follow suit and examine this more deeply (Rogers, 1979). Further to this, therapists practicing from a constructivist approach tend to direct the conversation with the intention of clients generating their own specific and positive resolutions for problems. These therapists would also likely focus on what has worked for the client in the past – at this time exercise may have been a factor that had previously helped the individual (Andrews & Clark, 1996; De Jong & Berg, 2007).

Exercise Discussion and Mind-Body Dualism

The hypothesis that mind-body dualism would negatively correlate with exercise discussion in therapy was not supported. None of the totals nor the individual items correlated with exercise discussion. Due to the poor measurement properties of the dualism scale, the results are inconclusive at this time. The correlations of items 2, 3, and 4 appeared to create somewhat of a spiritual dimension, likely not getting at the construct of interest. Due to there being no known measures for mind-body dualism, this study aimed to use a measure that had been developed in a previous study. Because of the poor quality

of the measure, it is not possible to determine if the lack of relationship was genuine, or if no relationship was found due to the construct of interest not being adequately measured.

While some have suggested that mind-body dualism is a barrier to discussion of physical exercise in psychotherapy (Faulkner & Biddle, 2001; McEntee and Halgin, 1996), there have been no known quantitative studies examining this connection. It will be necessary to create a better measure of mind-body dualism to further examine this relationship.

Implications for Psychotherapy

The lack of relationship between exercise discussion in therapy, mind-body dualistic beliefs, and psychoanalytic/psychodynamic and cognitive/behavioural orientations is consistent with earlier research suggesting that one's likelihood of addressing physical activity is due to one's personal exercise attitudes and behaviours. Therapists who regularly practice physical activity are more likely to believe that exercise is beneficial to mental health, to perceive exercise to be appropriate to be discussed during psychotherapy, and to address exercise with their clients (Barrow et al., 1987; McEntee & Halgin, 1996; Royak-Schaler & Feldman, 1984). Not only are the exercise habits of psychotherapists associated with exercise discussion in therapy, but therapists who engage in regular physical activity report benefits to their counselling practices. Therapists have reported that regular exercise improves their physical stamina, mood, and mental energy (Barrow et al., 1987). These results suggest that efforts to increase psychotherapists' personal physical activity may be helpful

not only for advocating exercise for clients but also in improving therapeutic effectiveness. As psychotherapists are vulnerable to distress, burnout and compassion fatigue, and as they are ethically bound to take actions to improve their wellbeing, exercise is one tool they can use (Barnett & Cooper, 2009).

The results of the current study also suggest there may be more potent barriers to discussing physical activity in psychotherapy than mind-body dualism. Dixon, Mauzey, and Hall (2003) argue that an important barrier is the, "lack of training in the area of exercise and mental health" (p. 81). Therapists have agreed with this statement, reporting hesitancies in recommending exercise to clients due to unfamiliarity with physical activity and lack of awareness regarding the evidence of its benefit for clinical issues (Faulkner & Biddle, 2001; McEntee & Halgin, 1996). In responding to a survey, only 12.6% of psychotherapists indicated that they had undergone graduate training involving exercise or physical activity and when provided with an exam testing knowledge of literature regarding exercise, the respondents performed poorly (Burks & Keeley, 1989). Despite this knowledge gap, the majority of therapists who had no graduate training in exercise reported that that such a course should be required (Burks & Keeley, 1989). This suggests that focusing on the dissemination of information regarding the benefits of exercise on mental health would increase exercise discussion in psychotherapy.

The idea that exercise discussion is primarily dictated by personal physical activity behaviours than by the broader attitudes assessed in this study suggests that therapists may have the tendency to utilize therapeutic strategies that have

worked for them personally. This might extend beyond exercise to other techniques and interventions. For example, therapists were interviewed regarding how their personal therapy experiences influenced their therapeutic practice (Rake & Paley, 2009). One theme that came from these experiences was that of personal therapy as an educational process. Therapists described trying out specific strategies with their clients that they had found to be personally beneficial during their own therapy sessions. They also described steering away from using interventions that they found unsuccessful for them in personal therapy (Rake and Paley, 2009). These ideas suggest that one's personal experience is significant in shaping the way in which one provides therapy and the techniques and interventions one chooses.

The humanistic/existential orientation was one approach that did correlate with psychotherapeutic exercise discussion. While the mind-body dualism scale did not effectively measure the construct of interest, this relationship may provide initial support that those therapists more likely to work from a holistic framework are likely to discuss exercise. As discussed earlier, humanistic/existential therapists often focus on working with the connections between the mind and body, especially within the Gestalt approach (Woldt & Toman, 2005; Truscott, 2010). This can be expanded to assume that these holistic therapists are more likely to see the mind and body as unified, which may indirectly get at the mind-body construct. More research regarding the relationship between the humanistic/existential orientation and mind-body dualism attitudes would be of interest.

Limitations

One strength of the current study was that recruitment of participants at an international psychotherapy conference allowed for a wide range of psychotherapists from a variety of geographic areas. The condensed length of the survey allowed for high completion rate. Despite these strengths, several limitations also deserve mention.

The most significant limitation involved in this study was the measurement of mind-body dualism. As stated above, there was low internal consistency in the scale, and those items that did correlate together appeared to focus on a spiritual construct rather than the mind-body dualism construct. Due to the poor quality of the scale, it is not possible to determine whether there was genuinely no relationship between exercise discussion and mind-body dualism or if the results were due to failing to measure the construct of interest.

Finally, the measurement of exercise discussion in psychotherapy is somewhat limited. The question presented a clinical case vignette and had respondents answer the likelihood that they would address the issue of exercise with this client. This question was used to facilitate the comparison with results from McEntee and Halgin (1996). The topic being assessed was clear, and due to this, participants may have answered the question in a way they thought they should answer or in a way they would like to practice, rather than how they would actually behave. In addition to this possible social desirability bias, the question did not ask about actual practices, but rather asked respondents to predict their own behaviour. It would be interesting to understand if these responses

approximate therapists' actual practice. In the current study, the majority of participants indicated that they would address exercise with the client in the case vignette. In contrast to this, when reviewing clinical records of psychotherapists, McEntee and Halgin found that the word "exercise" was indicated in only 1.5% of the cases, suggesting that respondents may over-report their practices of addressing exercise when responding to hypothetical case vignettes.

Future Research

Development of a psychometrically sound scale to measure the construct of mind-body dualism attitudes would provide a better understanding if the associations between mind-body dualistic attitudes, exercise discussion in therapy, as well as other therapeutic factors. Another more indirect way to measure this relationship would be to investigate whether therapists who use other mind-body techniques in therapy (e.g. somatic therapy, relaxation), are more likely to address exercise and other health concerns with their clients. Future research could also focus on other ways of measuring discussion of physical activity such as asking therapists about their actual practice and examining case notes.

Given that the relationship between exercise discussion and humanistic/existential and constructivist/narrative/solution-focused approaches may be due to eclecticism or openness to various techniques, research could examine this relationship further. Future studies could also examine if openness to different techniques is related to the propensity to discuss other health behaviours such as nutrition.

Another area to examine further is the most effective way to approach the issue of physical activity in psychotherapy. It would be important for controlled studies to be conducted to determine whether addressing exercise in psychotherapy is helpful, and if so, the best time and method to discuss the topic. In reviewing the literature, Hays (1999) reports that assessment of physical activity and education about the benefits of exercise can begin in the first session, noting the possibility of later referral to another professional, such as an exercise therapist. She describes the importance of understanding clients' personal beliefs about exercise, their physical activity history as well as the socio-cultural and environmental factors involved (Hays, 1999).

As exercise has repeatedly shown to be a beneficial resource for psychotherapists, research on how to best utilize physical activity as an adjunct to psychotherapy is highly warranted.

Conclusion

This study examined the relationships between psychotherapeutic exercise discussion, theoretical orientation, and mind-body dualism attitudes. The majority of therapists reported that they would be likely to address exercise with a client presented in a case vignette. Predicted relationships between theoretical orientation and exercise discussion were not found. Instead, unpredicted associations between humanistic/existential and constructivist approaches suggest that therapists who discuss exercise may be more open to various techniques. These results may also provide evidence to existing literature suggesting that personal exercise attitudes and behaviours influence whether therapists will

address physical activity in psychotherapy. Due to poor measurement qualities of the mind-body dualism scale, more research is also needed to better understand the relationship between this variable and exercise discussion in therapy. The relationship between the holistic humanistic/existential orientation and exercise discussion provides possible indirect evidence of associations between mind-body integration and exercise discussion. Further research could help to elucidate the best ways of addressing exercise in psychotherapy.

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Appendix A

Questionnaire

Demographics:

Gender:
- Male
- Female

Age: _____

Years of Psychotherapy Experience: _____

Profession:
- Psychologist
- Psychiatrist
- Counsellor
- Social Worker
- Other: _____

Highest Degree Obtained:
- Doctoral
- Masters
- Bachelors
- Other

Primary Psychotherapy Setting:
- Educational Institution
- Hospital
- Private Practice
- Public Mental Health Clinic
- Other: _____

Therapeutic Orientation:

Please rate the degree to which you practice from each of the following orientations:

	Not at all				Very much
1. Psychoanalytic/Psychodynamic	1	2	3	4	5
2. Cognitive/Behavioural	1	2	3	4	5
3. Humanistic/Existential	1	2	3	4	5
4. Family Systems	1	2	3	4	5
5. Multicultural	1	2	3	4	5
6. Feminist	1	2	3	4	5
7. Constructivist/Narrative/Solution-Focused	1	2	3	4	5

Exercise:

Please consider the following scenario:

> A 30-year-old client comes to you seeking psychotherapy. The client complains of feelings of low self-esteem, mild depression, mild anxiety, and moderate levels of stress. The client is apparently in good physical health and of average weight.

What is the likelihood that you would address exercise with this client? (Exercise being a continuous activity involving large muscle groups, aerobic in nature, and performed for at least 20 minutes at one time.)

Not likely at all						Extremely likely
1	2	3	4	5	6	7

Attitudes:
Please rate the extent to which you agree or disagree with the following:

		Strongly Disagree				Strongly Agree
1.	The mind and brain are two separate things	1	2	3	4	5
2.	The mind is fundamentally physical	1	2	3	4	5
3.	Some spirit survives after death	1	2	3	4	5
4.	Each of us has a soul that is separate from the body	1	2	3	4	5
5.	Behaving rationally requires a struggle against our physical nature	1	2	3	4	5
6.	The body is inhabited and governed by the mind	1	2	3	4	5

Appendix B

Consent Form – Internet Recruitment

As a Master´s student in Counselling Psychology at the University of Alberta in Edmonton, Alberta, Canada, I invite you to participate in research I am conducting as part of my graduate program.

The purpose of this study is to examine the relationship between psychotherapists' attitudes and whether they discuss the use of physical activity in therapy.

You will be asked to fill out an online survey which will take approximately 5 minutes to complete. There are no foreseeable harms and no known risks to participating in this study. This research may help to increase knowledge involving clinicians' beliefs regarding discussion of physical activity in psychotherapy.

Your participation is entirely voluntary; you are free to fill in the questionnaire or not. By clicking on the button, "Next," you are consenting to be a participant in the study. If you decide not to participate, you can click on, "Exit this survey" in the top right corner of the screen.

If you agree to participate, you are free to withdraw from the study at any time by closing the browser window or by clicking "Exit this survey." However, once you submit the completed survey, you will not be able to withdraw your data as the surveys are anonymous and cannot be linked with any identifying information.

Your participation is entirely anonymous and confidential. You will not be able to be identified by any of the information you provide in the questionnaire. Data will be kept in a secure location that only I have access to, for five years.

If you would like to receive a copy of the research findings, you are welcome to contact the Department of Educational Psychology at the University of Alberta. If you have any questions or concerns regarding your rights as a participant or any other aspect of the study, please contact me or my supervisor at the contact information below.

Thank you for your time and consideration.

Jessie Germin, M.Ed. Student, Counselling Psychology
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The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana and Campus Saint Jean Research Ethics Board (EEASJ REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB at (780) 492-3751.

Appendix C

Online Recruitment Letter

STUDY ABOUT THE RELATIONSHIP BETWEEN PSYCHOTHERAPISTS' ATTITUDES AND DISCUSSION OF PHYSICAL ACTIVITY IN THERAPY

Principal Investigator: Jessie Germin, B.A.

Purpose of the research: Fulfillment of thesis requirements for a M.Ed. in Counselling Psychology at the University of Alberta, Edmonton, Alberta.

Completion time: **5 minutes**

If you are a psychotherapist...

You are invited to participate in an anonymous study to examine relationships between therapists' characteristics and their likelihood of discussing physical activity in therapy.

If you decide you would like to participate, you can please click on the link below to access the informed consent form online.

Please read the informed consent form and, if you agree with the terms, follow the instructions to complete the survey online.

Thank you for your time and consideration. Without your cooperation this research would not be possible.

Sincerely,

Jessie Germin, M.Ed. Student, Counselling Psychology
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Appendix D

Conference Consent Form

As a Master´s student in Counselling Psychology at the University of Alberta in Canada, I invite you to participate in research I am conducting as part of my graduate program. The purpose of this study is to examine the relationship between psychotherapists' attitudes and whether they discuss the use of physical activity in therapy.

Your participation is entirely voluntary; you are free to fill in the questionnaire or not. By returning the questionnaire to me in the box provided, you are consenting to be a participant in the study. If you choose not to fill out the questionnaire, you have chosen not to participate. Your responses are entirely anonymous and will be kept confidential. You will not be able to be identified by any of the information you provide in the questionnaire.

Thank you for your time and consideration.

Appendix E

Conference Contact Information

Thank you again for taking the time to participate in this research project.

If you would like to receive a copy of the research findings, you are welcome to contact the Department of Educational Psychology at the University of Alberta. If you have any questions or concerns regarding your rights as a participant or any other aspect of the study, please contact me or my supervisor at the contact information below.

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The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana and Campus Saint Jean Research Ethics Board (EEASJ REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB at (780) 492-3751.